WAGES AND LABOUR COSTS

A Statement of the Economic Laws and Theory of Wages

BY

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"Hypotheses non fingo"

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PREFACE

In Economics the Theory of Wages is a subject beset with peculiar difficulty. Not only is it a subject to which propositions laid down *a priori* are inapplicable, but the inductions based on the facts of history and experience, though they alone in this connection can have claim to scientific value, must be inductions wide enough in range, and covering long enough periods of time, to afford reliable comparisons.

It is only by means of and through comparisons of that character that the abiding economic tendencies, or "Laws," which influence, and in the long run go to determine wages, can be so formulated that a true Theory of Wages—true independently of place or time limitations, as every true scientific theory must be—can be set out.

So far, attempts to formulate a Theory of Wages have not been satisfactory, partly because these have been efforts to rear theory on "abstract principles"; partly because it has been forgotten that discussions on wage rates have no meaning apart from prices and the movements of prices; partly because the term "Labour" has been arbitrarily restricted to human manual labour; partly because the great economic

importance in modern production of mechanical labour-power has not been sufficiently taken into account; and finally, and not least, because the truth has been overlooked that human services are not quantity only, but in every instance quantity and quality combined.

In setting out in the following pages the "Laws" which make up the true Theory of Wages, the aim has been to avoid these preceding errors. The statement has not been encumbered with a mass of statistical details, for statistics are in Economics but the raw material of evidence, and the reader justly desires to have the material served up prepared. What is necessary is that the inductions from the facts of history and experience should carry conviction, and the observed "Laws" be seen to be in harmony with experience. The Theory based upon them then becomes, because manifestly true, applicable and useful, and a sure guide in dealing with Wage problems, and Labour-costs.

If science be "ascertained facts co-ordinated into general propositions," as it is, then science cannot at the same time consist of hypotheses, which, however interesting as speculation, do not come within the definition. The inquiry of which the results are outlined here has ranged over a wide field; but the results have been stated as succinctly and tersely as possible. The world of fact is a world in which not economic causes alone are at work, but economic causes crossed and stressed by political causes; and there is no practical point in discussing a supposed purely economic world which is not the world of fact and never can be.

This has been one of the mistakes which have made so much economic discussion appear abstract and dry. Though economic causes, rooted in human nature and in human motive, are more powerful than political causes, because they are abiding where even the strongest political cause is by comparison temporary, the interaction of economic and political causes cannot be ignored. While this renders the Theory of Wages a subject of peculiar difficulty, it does not prevent an exposition which it is hoped will be found lucid enough to be followed by the ordinary reader with interest as well as with practical advantage.

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CHAPTER I

RISE OF THE MODERN WAGE SYSTEM

I. *Wages—what?*—Wages means the recompense of hired services in terms of money. Payments of that character plainly, therefore, imply in the first place a state of society in which contract is recognised as governing the exchange of services as well as of goods, and secondly the use of a medium of exchange accepted as the standard of reference for exchangeable values.

When in these circumstances services have a price—the common estimate of their exchangeable value—contracts for the purchase and sale of services become readily practicable and in general use.

II. *Wage Employment Modern.*—This is a leading feature of society in most countries of the modern world, but the resultant existence in most modern countries of a class of employers—*purchasers of services*—and a class of employees—sellers of services—is not, in point of time, an ancient development.

III. *Mediæval Status.*—It was preceded, during the Middle Ages in Europe, by the state of society in which

the services of feudatories were recompensed in grants of land, and the services of the villeins, who made up the mass of the population, paid for in kind. Free contract for the purchase and sale of services was the exception. The use of money was limited and its quantity small. Roundly this state of society prevailed over the greater part of Europe for 1,000 years—from the beginning of the sixth to the beginning of the sixteenth century. During these 1,000 years, little by little, the services of feudatories became crystallised into customary obligations offset by customary rights, and the services of villeins, equally by force of custom, became the foundation of servile and copyhold tenures, rights of common and rights of turbary, etc. In the towns the craftsman did not sell his services to an employer. He became a member of a craft guild. As applied to services the notion of status was universal; the notion of contract rudimentary. This influence of status is still seen in the class distinctions of European society.

IV. *Its Break-up.*—The hardening of the Feudal System and of the villeinage underlying it into customary rights would have meant, and for a time did mean, a slowing down of social evolution. But the course of social evolution in Europe was profoundly affected by an event now seen to have been fraught with the most momentous consequences. That event was the discovery of America.

With the exploitation of the silver mines of Mexico and Peru there was again introduced into Europe, and in time rendered comparatively common, a medium of

exchange—silver—which, after the fall of the Roman Empire, had become very rare.

This new facility of exchange breathed into trade a new life. Commerce, more important and less local, was expanded besides by the re-invention of instruments of credit. The impact of these events on Feudal Society during the sixteenth century, stirring everywhere the spirit of adventure, commuted the services of feudatories into money rents, and gave a freedom not before known to the purchase and sale of land. And the impact, step by step, breaking down in the towns the monopolies of the craft guilds, led to the purchase and sale of services for money. In the country it brought about the hiring of land for money payments, and the hiring of the services of labourers for money wages.

V. *Transition to Contract.*—It is advisable to bear in mind, however, that this, as it is termed, modern state of society is not yet more than 500 years old, and that Feudal Society in Europe lasted for twice that length of time. Feudal Society was society on a basis of status; the modern state of society is founded on contract.

VI. *The Economic Motive.*—And it is of interest to consider this movement of Society during the last 500 years from status to contract from the standpoint of economic motive.

Under status the condition of a man, governed by prevalent and, as a rule, all-powerful custom, is determined by the class or caste into which he is born. All the weight of custom is directed, when society is based on status, to the preservation of status. Condition forms

part of every person's inheritance. If born a peasant he lives and dies a peasant; if in the class of craftsmen he lives and dies a craftsman; if a noble, nobility remains his birthright whatever his personal fortunes.

Such a state of society lessens individual risks. Within the limits of class it affords individual security; and the desire to lessen risks and to affirm security is the impelling common motive from which, in the first instance, custom resulting in status is evolved, and then defended and maintained. The preponderating common motive is desire of safety.

VII. *Status due to Political Risks.*—Accordingly it is one of the experiences of history that when society has over a length of time been exposed to grave disturbances and great risks, the tendency to develop status as the best form of common security either appears or, if already in existence, is quickened.

This was the state of things which obtained in Europe during the decay and break-up of the Roman Empire. From A.D. 200 to A.D. 500 throughout Western and Southern Europe violence increasingly usurped the place of law; and life and possessions alike became more and more insecure. The result was the growth of the Feudal System, and the evolution of status, which established the possessors of land as one class, but equally left the mass of the population serfs. Universally services, agricultural and domestic, as well as crafts and trade, became the subjects of custom. On all hands services were regulated by the usages of custom.

VIII. *Economic Evils of Status.*—But if status lessens

risks and affords individual security within the limits of class, it equally and at the same time lessens and narrows chances. To originality, activity, and enterprise it sets up a standing bar; it represents a condition of society essentially *static*.

The first influence, as said, which impinged on this static condition of society in Europe was geographical discovery, and the fruits of that discovery.

IX. *Effects of Scientific Discoveries.*—But scientific discovery, which inceptively through the birth of the New Philosophy of physical inquiry trod closely upon the heels of geographical exploration, formed a second influence impelling in the same direction—to new life, activity, and adventure—and it was destined to become yet more powerful. These two influences, moreover, being complementary one of the other, have worked hand in hand, until, together, they have opened up, changed, re-peopled, and in a sense created the Modern World.

In the face of these influences the break-up of the static condition of society in Europe was inevitable. At an ever-quickening pace that society passed between the fifteenth and the nineteenth centuries from status to contract. During the nineteenth century this change came to be all but complete. Save in Eastern and parts of Central Europe the last bulwarks of status disappeared, overthrown either by gradual and insensible change, or swept away in revolution and war.

X. *Rise in Material Welfare.*—Once more beneath this change there lay a preponderating and common economic motive. The motive is found in the fact that

in society based upon contract—the free interchange by purchase and sale of services and of goods—a far higher level of material common welfare is attainable than is possible under status. The limitation of chances due to status being swept away, activity, enterprise, invention and inquiry—the whole range, in short, of the resources of the human mind—come into play. The results in the increase realised of material wealth have been nothing short of marvellous. In society based on contract the preponderating common motive is desire of enrichment and advancement, and the motive is stirred by opportunity.

XI. *Modern Society Dynamic: The Secret of Social Progress.*—Save to the philosopher, reflecting on the results after the event, common economic motive, as such, is unconscious or, at best, subconscious. It appears in the desire of men under these free conditions to better each his place in life or his fortune. When that desire grows so widespread as to be predominant, it creates an impetus which is irresistible. *Society based upon contract, therefore, is essentially dynamic.* For the same reason it is essentially progressive, just as society based on status is essentially unprogressive in proportion as status is complete.

XII. *Conditions of Social Stability.*—On the other hand, if, in a society based on contract, the common dynamic impetus begins to fail, then the equilibrium of such a society becomes unstable. So long as the dynamic impetus predominates, and progress is maintained, equilibrium is assured. In ratio as the dynamic impetus

is enfeebled and progress falls off, balance is lost and the tendency to fall back upon status, for the sake of individual security, reappears.

For though society based on contract enormously widens every avenue of opportunity, it inevitably and, at the same time, correspondingly widens every avenue of individual risk. It heightens the lights until they become dazzling, but in so doing it, of necessity and by contrast, deepens the shadows. The extremes between success and failure are set farther apart.

In passing, it may be observed that a society based on contract is one adapted to the temperament of a bold, inventive, adventurous and colonising race; a society based on status is one adapted to the race temperament that clings to usage and to birthplace.

XIII. *A New Social Experience.*—Let it be added that Western Europe and America came to present during the nineteenth century the most complete example of society based on contract in the history of mankind; the most complete example, and also, *in that degree*, the first example. In freedom and in material welfare men had entered upon a new and unexplored field of experience.

In order to complete this outline survey let us once more glance backwards.

XIV. *Evolution of Free Labour.*—In the times of the Persian, Grecian, and Roman Empires, though free purchase and sale of services existed, it became more and more the rule that, in the mass, the services rendered were those of slaves. Anybody who desired to employ crafts-

men or labourers had either to purchase the craftsmen or labourers, or to hire them from their owner. It was for this reason that manual labour, save in his own fields, was looked down upon even by the poorest free man as the work of slaves, and therefore degrading. Nor was it until Roman Law had recognised the slave's *peculium*—that portion of his earnings which in law he could personally own—that anything in the modern sense of wages became usual. Under the pressure of Roman Imperial taxation, the rural slave became the serf tied to the land, the *adscriptus glebi* of the earlier ages of Feudal Europe, shaded gradually into the villein hedged about by customary rights, and in modern times became the free labourer.

In all, this evolution just glanced at covers from first to last a period of more than 3,000 years, but it is during the last 500 years that society, owing to the influences already alluded to, has changed into its modern form. That change had been preceded by the change from a static society based on chattel slavery, to a static society based on feudalism, serfdom, and customary rights.

XV. *Adaptation to Mechanical Labour-power.*—So far as we are aware, society in India and China escaped the taint of chattel slavery, and evolved forms of status founded on the public ownership of land. The characteristic form of society in India is found in its village communities, that of China in its rural communes. And, except so far as usages have been modified by modern European ideas, alike in India and in China the employ-

ing class has remained limited in number, crafts being for the most part carried on by associations of craftsmen sharing the proceeds among them, and also mostly inheriting their callings. This is a state of society adapted to the lack of mechanical labour-power; just as society in modern Europe and America has been adapted to the huge expansion of that power made possible by scientific discovery and its applications.

XVI. *Influence of the Great Religions.*—On a dispassionate retrospect it is important in passing to note the influence on social conditions exerted by the great religions. Christianity, proclaiming the moral and spiritual brotherhood of man, supplied an influence which enabled Europe to escape from the economic bonds of chattel slavery. During the whole of the Middle Ages the moral weight of the Christian Church was exerted to win for the serf the status of a free man through the gradual acknowledgment of customary rights.

And there can be no doubt that China and India evaded the same evil through the influence of Buddhism and Brahmanism, these religions resting on the same broad moral base. It is a remarkable fact that in the world to-day, for the first time in human history, chattel slavery is to all intents extinct.

XVII. *The Wage System Modern.*—It is apposite in setting out the economic Theory of Wages not to lose sight of the historical and ethical background, and to bear in mind that the Wage System of the modern world is peculiarly a feature of the modern world. It was not a feature of the ancient world, nor of the

mediæval, nor is it even now universal. Over nearly one-half of the modern world, estimated by numbers, it is either of limited application or of very recent origin. The vast mass of the population, alike in India and China, is self-employing.

XVIII. "*Collective Bargaining*."—Furthermore, it is important to bear in mind that the evolution of the modern Wage System is by no means yet at an end. It arose out of, and it presupposes, the free purchase and sale of services, and the regulation of such purchase and sale by the accepted principles of contractual relationship. The presupposition, however, has, since the beginning of the nineteenth century, been profoundly modified by "collective bargaining." In contracts for services "collective bargaining" either restricts, or rules out, the right of individuals on either side to make their own terms, substituting "collective terms" to which individuals are obliged to conform. This, set up with the aim of lessening the individual risks of sellers of services, is a reappearance of the tendency towards status.

XIX. *What it Signifies*.—The tendency has significance because the sellers of manual labour services being a majority in most modern societies of European origin, the determination of collective terms, and of the rights and wrongs of manual labour combinations, has become a political question. The tendency, again, is the more significant because the enforcement of "collective bargains" does not, as a rule, lie with Courts of Justice like the enforcement of other contracts, but in the extra-

legal expedients of strikes or lock-outs. The matter has been further complicated by legislation conceding status to labour unions. The actual sanctions of these labour treaties are threats or acts of industrial war.

XX. *Social Effects of Contract.*—So far the contractual basis of modern society has been modified. A state of society in which free contract has replaced status is, from its flexibility and the incentive it offers to the resources of mind, much more adapted to the needs of industry and trade where industry and trade alike through geographical and scientific discovery are changing and expanding. But such a state of society, if more brilliant, and in the mass incomparably richer, is more fragile. There is in the multitude and majority of men a preference for the determinate over the indeterminate, a tendency to follow lines of custom rather than those of adventure. The minority only are adventurous.

The last 500 years have in the world's history been a period in which social change has gone on with cumulative speed and cumulative results. Geographical discovery, scientific invention, great migrations of population, vast increases in wealth, revolutions in production, revolutions in political ideas, and great wars have made it a period of unexampled brilliance, but one also of recurrent storms.

XXI. *Motive of Social Legislation.*—These contrasted results have appeared because it is in the nature of men in the mass to desire the chances of freedom, but to escape its risks. Though it seeks the impossible, that desire takes many forms. Much of the labour and social

egislation alike in America and in Europe represents he attempt to realise this aim.

XXII. *Laws of Wages.*—We now come to the practical urpose of the outline just given, for since freedom of ontract has had these impressive results, and contracts or the purchase and sale of services occupy this preominant place in the life of modern societies, it becomes nsistent for the economist to inquire how far, and in that manner, rates of wages are governed by those abiding tendencies, universally true, which in science are termed "laws."

If it can be shown that there are such abiding tendencies, then the change of society from status to contract will have thrown upon it the understanding of a new illumination.

In Economics abiding tendencies, arrived at by induction from the facts of history and experience, appear much less absolute than the natural laws of physics, for in Economics we deal with the element of mind—intelligence, desire and will—in relation to wealth and its creation and distribution, and the reflection of their interplay on the life of communities.

Nevertheless, though incapable of proof by the method of experiment, these "laws" bearing upon wages admit of logical and final demonstration.

XXIII. *Societies Organic.*—What is now certain is that human societies are natural organic growths, which have come into existence through the working of economic laws founded upon, and in harmony with, the powers and aptitudes of the human mind; and in

harmony with the human self-fulfilment through co-operative services and their interchange, which at once ensures material welfare and moral good.

XXIV. *The Quality Element.*—But it is necessary to guard against the error of thinking of labour and services only in terms of quantity. That habit is not science. At best, juggles with statistics present but half-truths.

In the production of goods the element of quality—including adaptableness and design—is an essential part of utility, and therefore of economic value. Similarly quality—character, ability, experience and skill—is an essential element of the utility and economic value of services.

To speak of Labour from the quantitative standpoint only is to speak of an abstraction which has no seizable correspondence to anything existing in fact.

All Labour is quantity and quality combined.

XXV. *The Theory of Wages.*—To bear that in mind is essential to seeing the problem in the round, and not less essential to a *true* Theory of Wages.

Taking quality as well as quantity into account, it will in the following pages be proved that there are, in fact, abiding tendencies which govern wages; tendencies which, because natural and abiding, and acting constantly through and upon economic motive, no efforts can in the end defeat.

It will be proved that there is a quantitative law of wages; a qualitative law; a distributive law, and a competitive law. The co-ordination of these laws gives the true Theory.

CHAPTER II

THE ECONOMIC SOURCE OF WAGES

I. *Value Creation.*—By far the simplest, and at the same time most direct, method of making clear the economic source of wages is to take an illustration familiar to every reader. Such an illustration is supplied by the commodity cotton. Between the money value of the cotton seed from which the planter raises his crop, and the money value of that crop when harvested, there is, as everybody is aware, a disparity wide enough, save in a disastrous season, to cover the expense of preparing the ground, planting, manuring, tending, and picking, and, over and above these charges, to pay the planter's proportion of local, State, and Federal taxation, and leave him a margin over on which he relies to support himself and his household. This difference in money's worth between the cotton seed on the one hand, and the harvest on the other, reflects, it is evident, a creation of new value.

When, however, the harvested cotton has been ginned, cleaned, and baled, it has gained, pound for pound, yet another addition to its money value, and that addition is reckoned to, and usually does, cover the cost of the compress operations, including deprecia-

tion and maintenance of buildings and equipment, and leaves a margin of profit on the capital employed.

Thirdly, when, baled, the cotton is moved by railroad to the seaboard, or elsewhere, it acquires, as ready for shipment, yet a third addition to its money value, and this, though not so great, is nevertheless appreciable enough to represent the services rendered by the railroad company as carriers, and to pay for those services. A common belief in regard to transport earnings is that they are nothing more than charges imposed on commodities. The economic truth, however, is that transport, whether by land or by sea, creates new values as genuinely as, in the instances given, the compress, or the labour and experience of the planter create them.

Let us next follow the cotton to the mill. A bale of cotton weighing, say, 400 lbs. may for the purposes of the illustration be taken as costing, say, 20*c*. per lb. That is 8,000*c*., or $80. But if, allowing 50 lbs. off for waste, the bale of cotton is manufactured into cotton cloth weighing 4 oz. to the yard, then it is clear that it has been transformed into 350 × 4 = 1,400 yards of fabric, and if that cloth, after having been fulled, bleached, printed, and finished, is sold at the final price of 40*c*. per yard, the gross receipt is 1,400 × 40 = 56,000*c*., or $560, or a difference over the $80 cost of the raw material of $480.

The figures just given do not, of course, pretend to be exact, nor even, for that matter, definite. They are merely adopted for the purpose of the illustration.

Now the difference of $480 covers all the charges of manufacture—power, light, wages, oil, maintenance and depreciation of buildings and machinery, administration and control, accounting, agency, commissions, taxation, and distributive charges and profits.

In following up this illustration we have outlined successive stages of value creation. As the total result, the quantity of cotton seed sufficient to produce a bale of cotton has become 1,400 yards of fabric. The cotton seed was comparatively of trifling money value; the fabric is worth, say, $560 retail. In the process new value computed in terms of money at very nearly $560 has been brought into being.

II. *Not merely Nominal.*—And that money value is not merely nominal. The difference in point of common human serviceableness between a handful of cotton seed and 1,400 yards of fabric is, on the very face of it, so wide, that the difference in their respective money values is no more than the expression of a real addition to serviceable wealth, and the difference in money value does no more than express the general estimate of that difference in the common standard of reference for exchangeable values—the country's currency.

Now apply the like method of illustration to iron and steel. In the earth iron ore has, in terms of money, a potential value only. Dug out, it acquires an actual value. Smelted into pig, the ore value becomes pig-iron value. Refined into steel, pig-iron value is raised to that of steel billets. These successive additions to money value embody the market estimate of addition

to utility. They cover all the costs of production up to the steel billet stage.

Next let us suppose that a ton of bar steel, costing, say, \$80, is manufactured into scissors. If, allowing for waste and scrap, the ton of material is made up into 10 cwts. of scissors, and the pairs of scissors weigh two to the lb., there will be $10 \times 224 = 2{,}240$ pairs of scissors, and if the scissors sell at the final price of 50*c.* per pair, they will realise \$1,120. Here the process of manufacture is, owing to the greater obduracy of the material, more expensive. None the less, from first to last, the successive stages of production represent the difference between the potential (and practically negligible) value of a certain quantity of unmined ore, and the finally realised receipt of \$1,120. Once more this difference reflects the creation of new real value representing, in terms of money, the utility difference between the ore and some 15 gross of cutlery in common request. Once more, too, the difference defrays all the charges, taxation included, involved in, or imposed upon, the production, exchange, and distribution of the finished commodity.

A third illustration is presented by timber. As growing trees, as lumber, as sawn wood, as seasoned wood, as wood worked up into the frames and casements of houses, or into furniture, the material gathers at every stage an addition to its money value definitely proportionate to, because standing for the common and accepted estimate of, its greater serviceableness.

III. *New Values are New Utilities.*—These illustra-

tions might be extended over the whole wide and varied field of production. But the examples given, all easy to grasp, will suffice to render clear the general proposition, which is that *the economic source of the recompense of services is the creation of new values representing the creation of new utilities satisfying human needs, wants, tastes, and desires.*

And the principle applies, not merely to the working up of raw materials, such as cotton, iron ore, and timber, but to the production of food-stuffs. It applies equally to basic industries like agriculture and mining, and to subsidiary and refined industries like the manufacture of clocks and watches, scientific instruments, and the elegancies of art. It is as applicable to the construction of buildings, ships, and machinery as to the manufacture of picture frames and jewellery.

IV. *First Apparent Exception—Public Expenditure.*—None the less, although the principle has this extended application, there is one important creation of values which appears to offer an exception to it. The apparent exception is expenditure on public improvements, for example, new roads. The values of such expenditures are not, as a rule, realisable in terms of money.

Nevertheless the exception is apparent only. Through the better facilities of transport opened out by, say, a new road, there is a definite creation of new utility, and that utility has, though it may not be estimated, a money advantage alike to users of the road and all whose farms or other properties are made more accessible by it. The public pays for that utility in defraying the

cost, including the cost of the labour, and the expenditure, if the improvement be desirable, is not without return. The rise which results in the value of adjacent land is not nominal or imaginary. It also is the expression, in terms of money, of an enhanced usefulness. Hence, where a country, previously unsettled and roadless, becomes interlaced with a system of roadways, the rise in the value of the land which results is a genuine creation of new value. The greater utility of the land is one step forward on the part of the community from potential towards actual wealth, for the greater utility means greater ability to produce actual wealth.

V. *Land Values.*—It lies beyond the scope of this treatise to discuss the land question, but it may be observed in passing that economically the value of land is a complex, and not, as often supposed, simple and indivisible.

Land has to begin with a security value. Until some form of settled government is set up in a territory, real estate there has no actual value. Settled government is the first step in land value creation. Secondly, land has fertility value dependent on climate, and on its natural quality. Good virgin soil is worth more than virgin desert. Thirdly, land has an improvement value. In a state of nature it is prairie, swamp, and wilderness. It has to be drained and equipped before it can be cultivated. Fourthly—and this is the point which is here applicable—land has a situation value, greater along arteries of traffic and in centres of exchange, like towns and cities, less in remote areas and back blocks.

7, and finally, land has a mineral value where it ved that minerals lie on or under it. And the and value in any place at any time is always an sion, according to their degree, of some combina- f these several economic constituents.

at has been said as regards roads applies *a fortiori* ilroads. On these, owing to their greater cost, charged. But so far as their service stands for n the creation of new money values by means of port, it is a revenue earned and not exacted. are, in fact, super-roads and national speedways, r modern conditions a necessary complement of the ary road system.

e security and situation values of land, though as sometimes asserted, bogus or inflationary, are es created without direct service on the part of e who receive the recompense. Nevertheless, ough neither the security nor the situation values nd arise from effort on the part of the owner, both the product of services. The return on the wage- of security services rendered for the public good ie common security value of property of every kind. ation and maintenance of that value is the considera- 1 for the public payment.

Rise in the situation value of land is analogous to in the money value of any possession which becomes reasingly desirable.

VI. *Second Apparent Exception—Domestic Services.*— second apparent exception is presented by domestic vices. The domestic employee is not a money-value

creator in any commercial sense of the term. If, however, convenience and decent conditions of living be accounted utility, and universally among civilised peoples they are, then the wage of domestic service, not merely ostentatious and wasteful, is a payment for value. The domestic worker is a creator of convenience-values. A good half of the work of the world is domestic work, and it is in civilised life rightly judged to count for so much in the sum of human well-being, that to narrow the term "utility" so as to exclude it would be clearly pedantic.

VII. *The "Creation of Wealth."*—Taking the term "utility" in its more complete sense, it is an economic truism that the recompense of services arises from value production. But what is value production? The usual reply is, "The creation of wealth." What, however, is the creation of wealth? Clearly the creation of utilities for the satisfaction of human wants and desires by turning to account the natural resources of the globe.

Besides the material wealth represented by commodities, there is the immaterial wealth represented by family affection, convenience, and æsthetic pleasure, and this, though immaterial, is not unreal. Men from choice never have, and never will, limit their expenditure to utilities in the narrow sense of the term, and it would be a very flat, stale, and deadly dull world if they did.

VIII. "*Wants*" *not limitable.—When we speak of human wants and desires, a fact of great moment to be kept in mind is that they have, in point of development and variation, no assignable limit.*

ı wants and desires expand and vary with the of production and the ability to satisfy them. ep forward in the capacity to produce, and ɜp forward in the conveniences and arts of life, creates a demand for the service it opens ,using new wants and desires adapted to it to ı this connection not merely is "desire" a term, but "want" is equally relative. For the wearing of shirts is now a universal "want" ɐd life. But even less than 500 years ago in his "want" was, for the mass of the popula-*·dly an imaginable luxury*. And this is but ng a thousand common "wants" which, in ner, have sprung up since, through the evolu-ɔroductive capacity, society changed into its :orm. The catalogue of "wants" is still far ıplete. Still less complete is the catalogue of

ıncurrent Growth of Production and "Wants."

ɔncurrent growth of wants and desires throws the impetus behind the growth of production, as that growth has been, neither wants nor ave been overtaken. The concurrent growth :tion on the one hand, and of wants and desires :her, is the advancement of civilisation.

ne of the difficulties of the world, and a main ;s political troubles, that this advancement in ɔn is not uniform. The rate of progress has ɔt only as between nation and nation, but as classes in each nationality. The fault, how-

ever, does not lie with the ability to produce, and it is important to note that freedom of industry and trade is the most powerful of all the influences—an economic influence stronger than all political expedients—which work towards equilibrium in the satisfaction of wants. While status sharpens the contrast between the economic condition of classes, and tends to stereotype the contrast, freedom of contract tends to level down the contrast.

X. *The "Wage" of Capital.*—The *economic* source of wages being the creation of new values, another point to be kept in mind is that not only has this creation of new values to cover and defray the recompense of Labour services, whether mental or manual, but, as already said, it has to cover the return on, or "wage," of Capital employed—as in some form it always must be employed for the sake of return—in the satisfaction of wants and desires through production, exchange and distribution. The creation of new value has also to cover and defray all taxation and public charges, whether national or local.

It follows that if from any cause—the chief modern cause has been the vast destruction of capital in war—the average "wage" of Capital is forced up; and if, to meet the debts and charges of Governments, taxation is forced up, the recompense of Labour services must be trenched upon, unless there is such an expansion in the capacity of production as to meet these dips into the new values total. If there is such an expansion, the recompense of Labour services will remain as before;

if the expansion exceeds the difference, the recompense will be higher than before; if, instead of expansion, there is a falling off in capacity of production, the recompense of Labour services will be less.

XI. *Purchasing Power.*—There is some difficulty in grasping the relationship between the total of new values created, and the main drafts upon it, because the sharing is usually disguised. One effect of the dearness of money, brought about by increase in public charges and public debts, is to lower the purchasing power of money. In terms of commodities—which are the fruits of services—money buys less. As a result prices rise, and also, as a result, the sellers of services demand more. Usually, therefore, the fall in the recompense of Labour takes the form of a greater rise in prices than in wages—the form, in other words, of a decrease in *real* wages. Decrease in *real* wages always appears where the productive capacity increase does not keep pace with the growth of taxation, and is not sufficient to prevent a rise in the average "wage" of Capital, for it has to be remembered that taxation falls not only on the recompense of Labour, but on the "wage" of Capital, and the taxation dip into the "wage" of Capital aggravates the effect of decrease through public waste. The combined effect of dearer Capital and of heavy taxation is to throw the chief burden on to the back of Labour.

XII. *Currency Debasements.*—But Governments have introduced a further complication by their debasements of currency. In the Middle Ages the process of debase-

ment was either to alloy coinage with a greater proportion of base metal, or to decrease its weight, and yet enact that it should pass for the same nominal value. In modern times the process of debasement is the unlimited printing of paper money dependent for its value on the public credit it is assumed to pledge. Since no Government has an unlimited public credit, it follows that the unlimited issue of "fiat" money in paper form is debasement, and although this is a fraudulently convenient means of meeting public charges, the debasement, by forcing up prices of commodities in terms of the debased currency faster than the price of services can rise, is but another and roundabout mode of depressing *real* wages.

XIII. *Their Effect on Contract.*—The grave evil behind and incident to these currency debasements is that by striking at the reliableness of contract, they strike at the very foundation of society in its modern form, and have quickened the throw-back towards status which has already appeared in "collective bargaining" and in the advocacy of "nationalisation." Conversely, the importance of restoring currencies to a gold basis—steadying their value by relation to a world standard of reference—is that such restoration, by reaffirming the reliableness of contract, tends to uphold freedom of contract, and to defend the modern form of society against reactionary attack.

XIV. *New Values Variables in Terms of Money.*—We have seen that under the freedom of contract established by the modern form of society, there has been a

vast growth in the resources, range, and variety of production, and a corresponding growth in range and in variety of the wants and desires which production is designed to satisfy.

But it has also been observed that the progress has been shadowed by a growth of public charges, which as they have to be defrayed out of the creation of new values, trench alike on the recompense of Labour services, and on the returns on Capital, and it has been shown that this draft on earnings usually takes the form, by lowering the purchasing power of money, of depressing *real* wages, as well as *real* incomes of every kind.

It is one of the difficulties, therefore, incident to the consideration of wages, that, *in terms of money*, new values created are variables. The new values *must* be reckoned in terms of money, but money itself is not a value-constant.

XV. *Causes of Variation:* (1) *Economic.*—The first cause of variation—an economic cause—lies in the greater or less abundance of the precious metals used as media of exchange, though for this purpose the greater or less abundance of gold need only be considered.

Increase in the world's stock of gold used as a medium would, and does—*assuming the total of production to remain the same*—lower the value of gold in relation to goods and services. In other words it leads to a general rise in prices, just as a decrease in the world's stock of gold used as a medium would, as for example through hoarding on a large scale, raise the value of gold in

relation to goods and services, and bring about a general *fall* in prices.

But these changes in the value of gold as a medium can only make themselves felt on the assumption that production, in the mass, does not vary.

Production, however, in the mass has been during the last 500 years expansive. Hence this first economic cause of variation has never in fact, during that time, been dissociated from the second and more important cause—the increase of production.

By itself increase in production cheapens commodities, but this cheapening is always modified in fact by the concurrent increase in wants and desires.

It has also been in fact modified by the increase in the world's stock of gold used as a medium owing to the discovery and exploitation of the new gold-fields in America, Australia and South Africa.

We have had, therefore, two economic causes working concurrently. Their combined effect has been to render the economic price changes due to them *gradual.*

XVI. *Causes of Variation :* (2) *Political.*—In addition, however, to these economic causes, there is the *political* cause arising out of taxation and currency debasements. The effect of this political cause on prices is *immediate and rapid.*

While wide in their influence and spread, the two first economic causes are slow in their operation. The political cause, because political, is rapid in operation and arbitrary in its incidence.

Besides these causes of variation in money values,

there is the variation due to seasons, and to the weight and grade of crops, and there is the variation due, in the case of minerals, to the supply in relation to demand.

In terms of money the value created by any economically linked succession of services is not only not a constant, it is subject to perpetual variation. Though the services rendered throughout the series may be the same, the money value of the results is not the same.

XVII. *Incidence of Variation.*—Further, in any economically linked series of services the incidence of variation is rarely uniform. Change may be felt all through the series, but unequally; in one instance most acutely by cultivators; in another instance most by manufacturers; in a third by transport; in a fourth by distributors.

None the less though, when we speak of value in terms of money, we are dealing with a variable, it remains true that out of new values created and estimated in terms of money, wages are paid. Labour creates, and must create, in that form the wages it receives, and it follows that the greater the new value it can create, the larger should be its recompense.

XVIII. "*The Secret of High Wages.*"—This brings into view the first point in what has been called "the secret of high wages." If increase of production is accompanied, without lag, by increase in wants and desires, then "demand" will prevent the money value of production from falling because of increase, and that

maintenance of money values of itself will strengthen demand by adding to purchasing power.

The mutuality of production on the one hand and of wants and desires on the other, with their consequent equal and reciprocal influence one upon the other, is among the most important of the truths of economics. In actual life the problem is one of adjustment—a problem chiefly of distribution. It is not enough to develop productive capacity by itself; "demand" must also be developed. In time "demand" arises of itself, but by study of distribution and marketing the growth of demand may be greatly speeded up, and "lag" done away with. The problem, in short, is one of closer co-operation between producers and distributors. It is not enough to treat the growth of demand as haphazard.

XIX. *Modern Lines of Development.*—This more complete co-operation between producers and distributors points to one of the main lines of development in the organisation of modern business. Formerly the producer, having got his goods "to the factory door," did not concern himself with the problem of their distribution. He sold "at the factory door" and left it at that. But it is now seen that this abandons too much to chance; for one of the handicaps on production was the high cost of finding and nursing markets. Now, however, production is coming into closer touch with distribution. Agriculture is evolving selling associations; producers are grouping into cartels for the purpose of finding and studying markets and cultivating

demand. Haphazard production, leaving marketing to chance, is bad economy. This movement is not, as sometimes alleged, merely a " trustification " of industry; it is a making good of the chain of linked services through all its length.

CHAPTER III

THE QUANTITATIVE LAW OF WAGES

I. *Modern Industry Organic.*—The system of production as now existing is of historic growth, and it is often supposed that, because a growth, modern industry presents a picture of haphazard. But that is not the truth. Carefully and dispassionately studied, *modern industry is seen to be highly organic.* We cannot follow the processes in any main line of industry without realising their intricate dependence at every stage on other industries, and finding that those industries, in turn, are dependent. Agriculture, for example, is seen to depend for its equipment on mining and engineering, and for its fertilisers on chemistry. As a seller of products it depends not less on the industries engaged in the preparation of food-stuffs, and on the textile trades. These, not less, could not exist save as dependents. Industry, in brief, is a vast webwork.

This webwork, neither the design nor the intention of any legislator, has been evolved in obedience to abiding tendencies, which, as causes, are far more powerful and, as consequences, are far more wonderful than any human design could even have conceived.

II. *First World Economic Revolution.*—The first of

these abiding tendencies is the saving of human labour in quantity. It may also be illustrated by a very simple example.

When, far back in human experience, the hoe was replaced by the plough, and men employed oxen, and later horses, in tillage, there was a conspicuous saving of human labour in quantity in proportion to the harvested results.

One man with a team of oxen could do as much in the matter of muscular exertion as twenty men working with the hoe, and with proportionate results. Ox labour was less than one-tenth the cost of human labour so applied.

The outcome of this advance, which doubtless was gradual and slow, was that large areas of the world's surface, which could not have been brought under tillage by means of human labour alone, became in course of time settled and cultivated. Both settlement and agriculture took on a vast extension, and the transition of society from the migratory and pastoral to the settled stage was aided and hastened. Apart from this saving of human labour in quantity, society could not have passed beyond the pastoral stage, as in the case of those native tribes of South Africa who lived upon cattle and were ignorant of the existence of the plough.

III. *The Economic Results.*—Essential food-stuffs being produced at far less human labour cost, the productive capacity of land was raised in ratio with those who had to live upon the produce. Comparatively

there was abundance where before there would have been scarcity. It was a great rise in the level of human living.

We are here contemplating a long-past, but profound, economic revolution. The first step of many steps along the road of economic welfare had been taken.

Even in the Middle Ages in Europe, nine-tenths of the population were engaged in the production of essential foodstuffs and clothing-stuffs. Methods of tillage had not substantially advanced for thousands of years. Primitive cottage and hand-labour industries in the manufacture of equipment and clothing made this necessary. One-tenth only of the population were free to follow the manufactures and arts of the more civilised aspects of life. And that is still the prevailing state of affairs in countries like Russia and India.

IV. *Its Modern Aspects*—Improvement in the equipment, implements, and resources of agriculture in modern times has meant that the proportion of the population engaged in the production of food-stuffs and the raw material of clothing-stuffs has fallen. In the more advanced countries it has gone down from 90 per cent. to 50 per cent. Modern scientific farming enables four men to produce wheat enough in a year of average harvest to feed 1,000 persons. One sequel has been the great growth of urban population and the great rise in non-agricultural industry.

"The flight to the towns" has been an *economic* phenomenon, and broadly it marks a forward movement in civilisation and in the crafts and arts of civilised life.

But this movement could not have taken place with the rapidity and on the scale which have characterised it during the last 150 years over a large part of the civilised world, had the spirit of adventure not been accompanied by the broadening out of urban industry, and the economic possibilities opened out by modern agriculture.

V. *Second World Economic Revolution.*—The great discovery of the application of steam-power initiated an economic revolution, similar in kind but far superior in degree, to that which followed upon the now prehistoric invention of the plough and the use of ox and horse labour. Because of this modern economic revolution, the world has never witnessed so rapid an upspringing of towns and cities. The present is preeminently from these causes an Urban Age.

The change is superior in degree and greater in results because steam-power—and now electrical power—are not only applicable at one-thirtieth of the cost of human muscle-power, and one-third the cost of horsepower, but the new forms of power can be almost indefinitely multiplied, where horse or ox labour could not.

Here, once more, there has been opened up an enormous saving of human labour in quantity. Mere human muscle labour can be transferred to machines.

VI. *Its Consequences.*—Consider some of the effects of the change. The change created a new demand for coal. At the same time, by the use of steam-driven winding equipment, deep mining became possible, where

before it had been impossible. The change created modern mining.

In turn the new supply of coal, through the extension of smelting, created modern engineering.

Engineering created the equipment of modern textile manufactures, and the means of mechanical transport by land and sea.

None of these things would have been possible save for the translation of muscle-power into steam-power.

This is the big bald outline. A thousand new crafts and a thousand arts sprang up in the train of the greater industries.

Consider further, and illustratively, some of the effects of the saving of labour in quantity in transport work.

A present-day locomotive can haul 1,000 tons of freight at 30 miles per hour. Taking it that, in terms of human muscle-power, one man could haul 4 cwts. of freight at 2 miles per hour, it is evident that 5,000 men would be needed to haul 1,000 tons at that pace. The locomotive hauls at 15 times the pace—doing, that is, 15 times the work in a given time. In terms, therefore, of human muscle-power, the work of one loco is equal to that of $5{,}000 \times 15 = 75{,}000$ men. It follows that if there are 10,000 locos employed on the railroads of the United States, they are equal to the labour of 750,000,000 men, but at a cost, all told, of 2,500,000 men, which, in fact, is not far off the total of railroad operators.

That is an illustration from transport, but lest it be assumed that the general principle is limited and lop-sided in application, take an illustration from mining.

But for modern equipment as many men would be needed to wind coal up to the pithead as are needed to cut it and bring it from the workings to the shaft. Were that the case, coal would be too dear for common use.

Again, in a cotton mill as many men would be needed to supply the motive-power by muscle work as there are operatives. Textiles could not be manufactured save by hand labour.

VII. *Basis of Modern Wages Problem.—This economy of human labour in quantity is the basis of the whole modern wages problem.*

On this saving, in one degree or another, every branch of present-day industry has been built up.

In terms of human muscle-power the aggregate of labour saving is incalculable. It was computed by Mulhall *—though of course all such estimates can be but approximate guesses—that the machinery power in use in Great Britain forty years ago was equivalent to that of a population as large as the population of Europe. The estimate, if anything, was under the mark.

On the same footing of comparison the machinery power now in use in the United States probably equals that of a population twice as large as the population of the globe. On the other hand, the present-day costs of such vast energies of production are not more, at most, than 3 per cent. of the human muscle-power cost.

VIII. *Low Wages not Cheap Labour.*—In passing we

* In *A Century of Wages and Prices.*

may glance once more for a moment at the profound, and in the end fatal, economic mistake made by the ancient Persians, Greeks, and Romans in assuming that the cheapening and increase of production was to be achieved by chattel slavery rather than by the saving of labour in quantity. It is a very old and obstinate error that slave labour is cheap labour. But the labour of men reduced to beasts of burden is always ruinously dear. Apart altogether from the destruction of incentive arising from loss of freedom, human muscle-power, on its lowest terms, presents barriers of cost which it is impossible to pass. Further, in ancient times the demand for slave labour, and the custom which looked upon the ownership of slave labour as a desirable form of invested wealth, inspired the slave-raiding wars which finally reduced to desolation countries bordering on the Levant, which in their more prosperous days were as thickly inhabited as Western Europe is now.

The belief that low money wages, and *a fortiori* no money wages, means cheap labour has always had the fatal influence of checking quantitative labour saving.

IX. *The Economic Factors of Labour Saving.*—We come to the economic principle and its application, and it will be seen that it involves the three factors of number employed, time taken, and output result. Designating these respective factors by the symbols N.T.R., if a datum be taken it is clear that

$$NT = R.$$

If, therefore, by saving of labour in quantity, the factors become, say, $\frac{N.T}{10} = R$, they are manifestly equivalent to

$$NT = 10\ R.$$

The saving may be any proportion of N. But in the improvement of processes, and this has conspicuously been a result of modern mechanical labour-power, the Time factor may be reduced as well as the Number factor. For example, in the case of the locomotive we should express the comparative result in the form :

$$\frac{N}{5,000} \cdot \frac{T}{15} = R,$$

or

$$NT = 75,000\ R.$$

Reductions in the Number factor and in the Time factor are not, of course, necessarily dependent one upon the other. There may be reductions in either or in both.

Reduction in the Time factor, however, is practically at least as important as reduction in the Number factor, and the application of steam-power (plus the still more modern application of electrical power) has, save in rare instance, the result of reducing both factors. No reliably exact data exist of output under past conditions of human muscle-power, but if we represent the old output result of, say, handspun cotton yarn as

$NT = R$ and the modern result as $\frac{N}{2} \cdot \frac{T}{20} = R$; the modern result, of course, is $NT = 40\ R$.

that is, that in any given time, a working day or week, the same number of operatives can now produce 40 times the output as under the datum conditions, and half the number of operatives 20 times the output. This comparison is confirmed by records and experience of costs.

Where the saving of labour in quantity is concerned, the questions to be asked and answered are: what is the number now employed in comparison with the number formerly employed, and what is the time it now takes to produce a given equal result? In practice the reasoning, in applying the test, would be from output result to Number and Time factors, so that the formula would be:

$$R = NT \text{ as the old, or datum, condition,}$$

$$R = \frac{N}{2} \cdot \frac{T}{20} \text{ as the modern condition,}$$

or

$$R = \frac{NT}{40};$$

a reduction meaning that yarn would now be produced, as in fact it is, at $2\frac{1}{2}$ per cent. only of its former labour cost, assuming the payment of equivalent rates of wages per hour.

It is only by the saving of human labour in quantity that an industry can progress.

X. *Labour Saving defined.*—Observe that the assertion is the saving of *human* labour and in *quantity*. The term "labour saving" is often loosely used, as though, in the improvement of processes, labour is saved absolutely. That, however, is never the case. What occurs

is that the labour, which otherwise must have been human muscle-power, is now supplied by steam, or by electrical power. The labour necessary is there, but it is natural energy of another kind derived through mechanical appliances. When oxen and horses were impressed into the service of man the total of labour was not diminished; it was greatly increased. Part of it only was now human. Similarly, *since the discovery and application of the mechanical uses of steam-power and electrical energy, labour has not only not been decreased; it has on an unprecedented scale been increased.* But the human proportion of the total of labour-power has fallen. Never at any time in the world's history has the total of labour-power been anything approaching what it is. The whole problem of human economic welfare hinges, indeed, on this total labour-power increase, and the problem has assumed an entirely new aspect in modern times precisely because the means have been discovered of an increase without present definite limits. Precisely, on the other hand, because the increase of human labour has very definite limits, the problem in ancient and mediæval times had quite another aspect.

XI. *Human Labour raised in Quality.*—Now this fall in the ratio of human labour to the quantitative total of labour-power has increasingly the effect of lessening the relative contribution of human muscle work to the results realised.

In face of the cheapness of mechanical labour-power, human muscle-power, as such, is in general too costly to be economically employable, and as it is becoming

more so, the tendency to eliminate it in favour of mechanical labour-power is constant.

But if the contribution of human *muscle* work to results has been narrowed and lessened, the contribution of human *brain* work to results has been, and correspondingly, broadened and increased. More and more the economic value of human labour lies in intelligence applied to directing and controlling mechanical labour-power, and less and less in mere muscular strength.

The induction just outlined brings into view the Quantitative Law of Wages, which may be stated in these terms :

In proportion as human labour is saved in ratio with results it is raised in quality, since such saving can only take place through the replacement of muscle-power (unskilled) labour by mind-power (skilled) labour, and the saving in quantity is measured by the decrease in numbers employed multiplied by the decrease in time taken per unit of result.

It has been shown that human labour is saved in quantity by the use of other, and much less costly, forms of natural energy. Inevitably and of necessity, the use of such auxiliaries means that the intelligent element in human labour, its peculiar and unique quality, is brought more into play, and has wider and more varied opportunities for its exercise. And the development of mind work is proportionate to the muscle-effort saving.

With mechanical labour available at one-thirtieth of the cost, human labour is too costly, even on its lowest terms, to be employed for the sake of muscular strength

alone. The muscular strength of man is inferior even to that of the ass. But the mind strength of man is immeasurably superior and *sui generis*. In achieving means of subsistence, employment of the mind strength of man can only be brought about by economising the necessity for demand upon his muscular strength.

XII. *The Time Factor.*—It will be seen from this statement of the Quantitative Law in its theoretical aspect, that broadly the final net effect is to throw the emphasis of saving on to the Time factor.

There has been, and there is, a great and progressive saving of human labour as compared with the old muscle-work and hand-tool conditions. Speaking generally, in those modern industries which are *most* fully equipped with mechanical labour-power, the manual human labour needed to turn out a result equal to that turned out by 100 workers under the old conditions is not more than 2·5 per cent. The percentage remains highest in agriculture and coal mining, though in every industry, owing to the operation of the Quantitative Law, there is an economic tendency for the percentage of merely manual labour to fall in ratio with the output.

On the other hand, owing to this saving of human labour in quantity, there is, through reduction in cost, just as steady a tendency towards increase of production, and from that cause the falling off in numbers employed, which would occur *were production to remain the same*, is checked.

XIII. *New Fields of Employment.*—For not only is the effect of mechanical labour-power to *enable a much*

higher proportion of skilled human labour to be employed to the total of the human labour-power ; that skilled human labour-power is mental as well as manual. A vast new field for the employment of skilled human labour-power of *both grades* has therefore been opened up, for mechanical labour-power is now the common base of both.

Further, and of necessity, the work of distribution in range and in variety has had to keep pace with production, and here, too, has been opened up a vast new field of employment.

Hence we have at work three influences, each contributing to keep up the total of human employment. All this has gone to disguise the saving on the Number factor, and as these changes have come about step by step, it is only upon the analysis that the full effect of the Quantitative Law on the *Number factor* can be seen. The working of the Law does not reduce the total of human employment. Its effect on human employment, by emphasising the incidence and broadening the range of skill, is not a cutting down; it is a *translation.* The decrease is per unit of result.

But *the saving in the Time factor is an absolute saving ;* and primarily it is to saving on the Time factor that most inventions and modern business organisations are directed. For example, if in the manufacture of an article made up of a great number of parts—say a motor-car—the parts can be "standardised," then, because the labour of fitting is reduced to its lowest, the assembling of the parts can be done in a fraction of the time previously taken.

XIV. "*Standardised*" *Production.*—This saving of time on assembling is an economy which reacts over the whole process of the manufacture, including that of the parts. Suppose the assembling now to be done in one-third of the time. Then the manual-labour-power engaged upon it is achieving a 3 R out-turn. But that labour is then taking up three times the total number of parts, and the labour-power engaged in the making of the parts is then working at its greatest advantage in ratio alike with its mechanical labour-power equipment and with overhead charges. Also the staff and selling sides of the organisation, in dealing with thrice the output in a given time, are working at the greatest advantage. Thus, all round, production and distribution costs are, in ratio with results, brought down. These are the reasons for "mass" production. In the final result it is the absolute saving on the Time factor which renders all the labour-power engaged, human as well as mechanical, more valuable. Commonly the saving is thought of as a saving of time only. In fact, however, it is a quantitative saving of human labour-power.

CHAPTER IV

THE QUALITATIVE LAW OF WAGES

I. *Higher Wages; Lower Costs.*—The Qualitative Law of Wages follows upon the Quantitative. The law may be stated now, leaving the illustrations and proofs to follow. The law is:

In proportion as human labour is raised in quality by increase in the ratio of skilled (brain) work to unskilled (muscle) work, its rewards are increased, and conversely its cost to production results is decreased.

As the essential and peculiar value of human labour lies in the element of intelligence, it follows that the greater the scope afforded to, and the use made of, intelligence, the greater must be the economic advantage at which human labour is employed. Conversely the less the use made of intelligence, the greater must be the economic disadvantage.

The element of intelligence is a comprehensive phrase embracing knowledge, experience, practical skill, ability, energy and character.

II. *Components of Modern Industry.*—Here it becomes necessary to correct a widespread but serious error in the common use of the terms Capital and Labour. More especially in political discussions Labour is commonly

spoken of as meaning manual labour only, and Capital as including all the activities not catalogued as manual labour.

But Capital, according to that interpretation, includes the labour of direction and supervision; the labour of organisation; the labour of design and calculation; the labour of testing and experiment; the labour of accounting; the labour of purchasing and marketing. In fact, a whole mass of labour activities, embracing not only the higher but the subordinate ranges of business ability and professional skill, is left out and thought of as not being "labour."

On the very face of matters no industrial process, and much less the elaborated and interlocked processes of modern industry, could be carried on apart from these superior forces of human labour-power. Not only would manual labour be helpless without them, but palpably both their importance and their necessity have been increased by the discovery, application, and increase of mechanical labour-power. Their ratio to manual labour was never at any time so high as now, and for the very reason that the ratio is dictated *not by the total of manual labour alone, but by the total of manual-plus-mechanical labour-power.* As two-thirds at least of the total labour-power of the world is now, estimated in terms of human muscle-capacity, mechanical, it follows that the varied activities of intelligence ranked by unscientific persons under the head of "Capital," are not only part of the total labour force, but a part of that force of increasing necessity.

This has been one of the greatest results, in the raising of human labour in point of quality, due to the working of the Qualitative Law.

A whole mass of new business enterprise and ability and of many-sided professional skill has been called into being because the discovery of mechanical labour-power has opened up opportunities for it never before existent.

While, therefore, the sharp distinction so often drawn between wages and other earned incomes may serve a certain purpose in political agitation, it has no truth or value at all in Economics. Economically all profits, salaries, and wages, as already shown, are drawn from the same source—the creation of new values by work done.

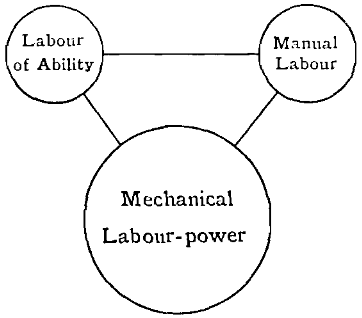
In considering Economic Laws neither false distinctions can be adopted as regards Labour, nor false distinctions regarding the rewards of Labour.

Turning our attention to mechanical labour-power, it will be seen that the object of machinery is to equip that power. An engine or motor developing a driving force equal to that of, say, 10,000 men, would be wasting effort were it not harnessed to the plant and machinery it sets in motion, precisely as a horse is harnessed to a cart.

It follows *that human labour-power, both mental and manual, becomes the more valuable the more completely it is mechanically equipped.* Mental and manual labour-power alike increasingly supply the element which mechanical labour-power, however well equipped, lacks. The more elaborately equipped mechanical labour-power becomes, the more necessary is intelligence, not only to

plan out the work to be done but to carry through the work in detail according to plan.

III. *A Triangular Combination.*—We have, therefore, in modern production a triangular organisation of labour-power: the directing and planning labour of ability, as one component; the manual labour, or detailed executive element, as the second component, and the mechanical labour-power and its equipment as the common base of both.



Under these conditions intelligence is called for in both the divisions of the human labour-force, but on different lines and in different degrees.

The productive results are achieved by the combination of the three, and the Qualitative Law is that the more unskilled human labour-power is transferred from muscle to machinery, and the higher the ratio of intelligent and skilled human labour to the total of the human labour, the greater will be the result-reward, or, conversely, the lower will be the cost of the human labour to the result-reward.

Here it is apposite to point out that the creation of mechanical labour-power has accomplished in production what in ancient times was aimed at by the ownership of a multitude of slaves. Modern mechanical labour-power is, as labour-power, the equivalent of ancient slave services, but on an immeasurably greater scale, and of course at a merely fractional part of the expense; on the whole, as already shown, not more than 3 per cent.

Now when it comes to rewards and their apportionment, an important point not to be overlooked is that the directing, supervising, and planning, or "staff," element of the combination, usually, under present-day conditions, eithers owns, or represents and acts for the ownership of, the mechanical labour-force.

By "Capital," as the term is used in common political discussion, is *really* meant ownership of *the* mechanical labour-force, and it is pertinent to observe that the actual capitalists and owners are now, as a rule, the stockholders or bondholders. They are not in the mass rich persons, but are millions of investors of moderate and often of small means.

At the present time, too, ownership and the "staff" element are not necessarily coincident. They may be identical in small enterprises, but in all large enterprises they are not; and indeed the staff, save for those at its head, may be non-owners.

IV. *What Result stands for.*—Clearly creation and ownership of the mechanical labour-force is, in virtue of that creation, entitled to a proportion of the result reward; a return, that is, on the capital sunk in the

creation of the mechanical labour-power over and above provision for maintenance and depreciation. Otherwise ownership capital would be asked to work without wages, and the creation of mechanical labour-power, as well as its up-keep, would dry up—an economic loss which can hardly be computed.

And the "labour of ability" involved is also entitled to the reward which induces it to initiate and continue in productive enterprise. Speaking economically, the contribution of manual labour to the total result-reward would then represent the remaining share.

It has been suggested that any recompense of the labour of ability which rises above the average of earnings (*i.e.* those of manual labour) represents the "rent" of ability. But it is palpable that services are paid differing rates because they have differing values, and generally, so far from the "rent of ability" being an excess payment as the doctrine suggests, ability, owing to the Law of Diminishing Return, receives less in proportion as its services mount in the scale of values. The doctrine of the "rent of ability," which has no foundation in fact, is scholastic bone-dust.

V. *Proofs of the Law.*—The Qualitative Law is that the creation of mechanical labour-power not only makes economically possible both the return on the capital sunk in the creation of that power, *and* the reward of directing and supervising labour, but tends, through the supercession of mere human muscle, or "donkey," work in favour of mind work, to raise the reward level of manual labour. The truth of the Law is proved by the

effect of every invention and discovery which enlarges the field for, and the application of, mechanical labour-power, for the effect is always to open up new opportunities for the exercise of skill in manual labour.

Take a familiar illustration. Faraday discovered the mechanical generation of electricity, and Tyndall that electricity could be converted into light, heat, and motion, all being interchangeable phases of the same natural energy. From these discoveries have arisen the great range of industries concerned with electrical illumination, heating, and power supply, and the manufacture of equipment for those purposes.

In those industries to-day, taking the world over, the skilled mechanics employed are numbered by millions. Here was not only a further and momentous advance in the saving of crude human labour, but at the same time the opening up of a wide field of new opportunity for skilled human labour.

All this originated from the sagacity of two great men, just as other equally wide fields for new skill have, before and since, been opened by the sagacity of other great men. Hancock, discovering a hundred years ago that raw rubber, then a waste product, when mixed and heated with a percentage of sulphur was converted into the tough elastic substance now known as india-rubber, originated the rubber industries. The discoveries and inventions of Stephenson, Fulton, Arkwright, Hargreaves, Crompton, Jacquard, Bessemer, Boulton, Joule, Perkins, Bell, Edison, Diesel, and Siemens, to mention only the more outstanding names, have each

of them opened up a great new field for skill, each field numbering its skilled operatives by the million.

The race of philosophers and inventors are not a race to whom mankind in the mass have shown overwhelming gratitude. Nevertheless, they are the true kings of social progress, economically the salt of the earth, and its salvation. Their service has been constantly and consistently to reduce the proportion of unskilled human labour and raise the proportion of skilled.

As fact, science and invention have created ninety-nine hundredths of the skilled manual labour employment now in existence.

In merely muscular power the difference between the strongest and the weakest able-bodied man is, though considerable, relatively narrow, but the difference between the mind-power of the most capable and the least capable is almost immeasurably wide. In mind-power great, capable, and original men are veritably giants. Under the conditions of modern production, and it may be added modern freedom of contract, great capacity has a vastly wider scope. Incidentally this greater scope for great ability has been one of the most profound economic effects of the discovery of mechanical labour-power.

VI. *No Break in Chain of Skill.*—But the differences in capacity, though their range is widest in the field of non-manual labour, appear in all human labour of whatever grade. There is no sharp break which divides manual from non-manual skill. The one form of capacity, where they meet, shades off into the other.

Hence it is an economic advantage, which, though limited in degree, is great in mass, that the ratio of skill in manual labour should be a rising ratio.

There is a common belief that mechanical labour-power, even where it does not displace manual human labour, reduces the operative to a mere machine-minder.

That belief will not stand examination. The truth, on the contrary, is that the more perfect, complete, and intricate mechanical appliances become, the greater is the intelligence needed to operate them, and the wider is the scope for skill in producing finished results.

One of the most striking of the savings of human labour in quantity, as already pointed out, has been the creation of railroads. In the operation of railroads a mass of human labour commonly classed as unskilled is necessary; but for the laying and maintenance of railroads, and in the making of the rolling stock and equipment, both a great new mass of skilled manual labour has been called into existence, and a great new force of skilled non-manual labour at the same time.

In mining a mass of unskilled human labour is also of necessity employed, but there is an equal mass of skilled work.

In the textile industries the proportion of skilled to unskilled manual labour is, from the nature of those industries, high. The ratio has not been lowered by the application of mechanical and mechanically equipped labour-power.

We might take any modern industry and, comparing its conditions with pre-mechanical labour-power con-

ditions, will find that the openings for the exercise of manual skill have been increased and have never been diminished.

VII. *Specialisation.*—Another economic effect of the creation of mechanical labour-power has been to hasten, and vastly to extend, the tendency towards subdivision and specialisation. This tendency arises from the importance of the Time factor in human-labour economy. It was existent before mechanical labour-power was thought of, because it was then the chief means of increasing result to labour cost, but it was limited and checked by the limits of appliances.

The invention of mechanical labour-power, stimulating the elaboration of equipment, broke down former checks and limits, and subdivision and specialisation have gone ahead at a pace never before even imaginable.

The seventy successive operations, for example, which are now included in the making of a boot, would be impracticable apart from the mechanical equipment.

Similarly in the manufacture of clocks and watches. What was formerly one craft has subdivided into a score and more of related crafts. Every industry tends to throw off such new subdivisions, just as a growing tree throws out new shoots. Mechanical labour-power and mechanical equipment act as the enabling influence.

In all these developments time, by subdivision and specialisation, is saved, and cost lowered in ratio with result.

VIII. *Wages and Costs.*—The working of the Qualitative Law may be illustrated from another angle.

Take the case of a professional engineer. His ability in construction planning and design would, under the old hand-labour or datum conditions, be so handicapped by the lack of properly equipped mechanical labour-power, that at most it could command only a strictly limited remuneration, and even that charge, on the results, would be high.

Associated with, and enlarged in scope by, properly equipped mechanical labour-power, his ability may command thrice the former reward, and yet the three-fold reward will represent a far lower charge in relation to results.

In like manner skilled manual labour in engineering, under "datum" conditions, would be robbed of the greater part of its value and effectiveness. Linked with equipped mechanical labour-power it can earn a higher wage, and yet the higher wage will represent a much lower labour cost.

The manner in which the economic value of skill is diminished by lack of proper equipment is instanced by the state of things in the textile industries of Europe 150 years ago. The spinner and the hand-loom weaver had each to work long hours for earnings which afforded but the barest and poorest living.

To-day the spinning mule has 1,000 and sometimes more spindles, and running, too, at a higher speed. The 1,000 spindles can be operated by one spinner and two assistants. Though these operatives each earn from three to four times the hand-spinner's wages, averaged between them, their earnings are but a low percentage of

labour cost to result in comparison with the hand-spinner's meagre pay.

Similarly the power-loom weaver can oversee from four to six looms running at a higher speed than the hand-loom. Here again the higher wage is a lower labour cost.

The more carefully the Qualitative Law is considered, the more clearly does it appear that high economic wage rates do not, as has too often in the past been assumed, mean high labour costs.

On the contrary, a rise in wage rates may mean a fall in labour costs, and conversely a fall in wage rates may mean a rise in labour costs.

IX. *The Lowest Labour Cost.*—In the problem of the relationship between wage rates and labour costs there are three main factors. The first is the extent to which, as measured in output results, the value of the human labour employed is enlarged by the mechanical labour-power employed. Here—and it is one of the essential results of the alliance of human labour with mechanical labour-power—a higher wage rate, acting as an incentive to diligence and the exercise of skill, may be a lower labour cost. On the other hand, a lower wage rate, which leads to a slackening in diligence and in the exercise of skill, may be a higher labour cost.

More than on anything else labour cost depends, in the conditions of present-day industry, on the fully effective operation of the mechanical labour-power. The wage rate which ensures that fully effective operation is the lowest labour cost.

X. *The Economic "First Charge" on Industry.*—The second factor in the relationship is the cost of installing, maintaining, and covering the depreciation of the mechanical labour-power. Every form of mechanical labour-power has its period of "life." It demands perpetual maintenance, and in view of its limited "life" period, it demands provision for renewal. *Provision for the maintenance and renewal of the mechanical labour-power is, therefore, the economic first charge on any industry dependent on it.*

But the weight of that first charge will be greater or less according to the cost of equipment, for the same conditions which make initial cost of equipment high will, if they remain the same, render the costs of maintenance and renewal high.

As an economic first charge, this greater weight must obviously trench upon labour rewards, and tend, therefore, to react upon the rate of wages. Nor is it possible to pass the greater weight on in higher price when the condition which causes it is equally felt by other industries.

The general condition which causes greater weight is a rise in the average rate on money reflecting an insufficiency of capital in relation to the demand for it. Suppose, owing to its insufficiency, the average rate on money goes up from 5 to 7 per cent. The difference between 5 and 7 is the difference between 100 and 140. In such circumstances the weight of the economic first charge will be increased by 40 per cent. in ratio with new value results realised in the current terms of money.

Next suppose that, owing to the abundance of capital seeking employment, the average rate on money goes down from 5 to 3 per cent. The difference is that between 100 and 60. The weight of the economic first charge will then be *decreased* by 40 per cent. on the same ratio footing.

Under the first of these states of affairs enterprise will be depressed, employment slack, and wages rates falling; under the second enterprise will be active, employment brisk, and wage rates rising.

It is of consequence to bear in mind that every 1 per cent. change up or down in the average rate on money means a difference up or down of 20 per cent. in the economic first charge on industry of maintaining and renewing mechanical labour-power.

At first sight the truth of that statement may appear disputable, but that it is true will appear when it is considered how with scarce and dear money prices fall, and how with abundant and cheap money they tend to rise. The fall in the one case in realised new value results relatively to the mechanical labour upkeep and renewal charge, and the rise in the other case makes the difference stated in the weight of the charge.

In modern industry variation in the weight of this first charge is of so much moment that there can be no cause for surprise that the variation should react on wage rates.

XI. *Economic Incentive.*—Could the world be assured of political tranquillity and undisturbed common security, economic causes, acting alone, would steadily

reduce the average rate on money and steadily increase wage rates from the causes just touched upon, until the point would be reached where the average return on money would make it no longer worth while to save for the purpose of equipping mechanical labour-power. But at that point, some fraction of, let us say 1 per cent., civilisation, owing to the low cost of maintaining production joined to high spending power, would take on a brilliance as far in advance of conditions to-day as conditions to-day are in advance of those in the sixteenth century.

Economically that vision of the future, so far from being merely imaginary, is not only possible; given general political tranquillity, it is a certainty.

But the world to-day is overshadowed by political intranquillity, and it is the borrowing and unproductive expenditures of Governments which are the chief cause of the insufficiency of capital reflected in the rise in the average rate on money. These public charges not only add to the economic first charge on industry in most of its forms, they also appear in direct overhead taxation charges. Industry has thus to carry a duplicated "on-costs" burden.

The existence of that duplicated burden, reflected in the heavy taxation revenues raised by modern Governments and local public authorities, all of which are exacted from labour-power, has tended to obscure the working of the Qualitative Law.

That law is none the less true, and from it a principle of great importance emerges. The principle is that *the*

highest rate of wages that can be paid on a footing of economic incentive is the lowest in point of labour cost.

This principle holds good despite the influence on rates of wages of the cost of equipping, maintaining, and renewing mechanical labour-power, and despite the effects of taxation alike on prices and on the rate on money. The principle holds good because, where economic incentive is at its maximum, the productive value of mechanical labour-power is at its maximum.

XII. *The New Valuations of Labour.*—But the truth of the Qualitative Law is best seen in historical perspective. Though a long list of commodities and products, once either luxuries or non-existent and since become common wants, makes exact comparison difficult, the fact is undeniable that since the revolutionary saving of human labour in quantity set in 150 years ago, and with it the rapid rise of human labour in quality, incomes and earnings in the mass have enormously risen, and at the same time, as reflected in the prices of commodities, the costs of labour in ratio to results have fallen.

Were it not so, wants in the mass could not have been supplied, and production could not have progressed.

It is a common complaint that distribution of these greater rewards is, and has been, unequal. In reference to that complaint it is necessary to bear in mind that one result of the development of mechanical labour-power has been economically to render human labour allied with it more valuable in proportion to human labour skill. *The highest grades of human labour have,*

through this alliance, gained most in economic value ; the lowest grades have gained least ; and wholly unskilled human labour, considered simply as muscle-work, has hardly gained in economic value at all.

Nevertheless, despite this widened disparity in economic values, unskilled human labour, owing to the Law of Diminishing Return, has tended to command wage rates assessed relatively to the higher incomes and earnings of skilled labour rather than to its own strict economic worth.

XIII. *Correct Labour Cost Basis.*—In estimating the labour costs of any productive enterprise, the costs of mechanical labour-power (including the current average return on the capital sunk in its installation as well as maintenance and depreciation), the costs of the manual labour-power and the costs of managerial and staff labour ought to be taken together as the total. It is unscientific to take the manual labour pay-roll alone as labour costs.

The practice of considering the manual labour pay-roll as alone making up "labour cost," has made the Wage System appear a speculation in the rates of manual labour wages, and it lies at the foundation of the belief that high manual labour wage rates are high labour costs, and low manual labour wage rates low labour costs.

But that belief is not only fallacious in any industry employing mechanical labour-power; it becomes increasingly fallacious in proportion to the mechanical labour-power operated.

In part the efficiency of manual labour depends on

incentive, and in part on physical fitness; and a rate of manual labour wages which impairs incentive, and much more a rate which impairs both incentive *and* physical fitness, *reacts back on the operation of the mechanical labour-power and reduces the economic value and results of that operation to a far greater extent than the lessening of the manual labour pay-roll.*

The true basis of comparison between the resultant loss on the mechanical labour-power, and the apparent gain on the manual labour pay-roll, is to translate the mechanical labour-power as nearly as possible into terms of human muscle-power. It will then be seen how heavily the resultant loss outweighs the apparent gain where the incentive and physical efficiency of the manual labour have been forced down; and conversely how heavily resultant gain on the mechanical labour-power will outweigh apparent loss on the pay-roll where incentive and physical efficiency are, through increase in the manual labour wage rates, rising.

Not only from this cause may a higher manual labour wage rate be a lower labour cost, but the same cause operates to make "staff" charges a lower labour-cost at the same time, since, as said, the mechanical labour-power is the common base of both.

XIV. *Secret of Successful Employment.*—It is vitally important, therefore, in the economics of business to deal with "labour cost" in the complete sense; and it is through acting on that principle that great employers of labour, particularly in the United States, have achieved outstanding success. But this principle is

the secret of the successful employment of labour everywhere, and of every grade. The great and successful employer always aims to plan his organisation not only to employ the highest proportion possible of mechanical labour-power, and the highest proportion possible of skilled manual labour, but through those proportions to pay wage rates which keep incentive up to its maximum. By each of these three means he lowers his labour costs, and, as a competitor, ensures himself a margin which reduces his risks.

CHAPTER V

THE DISTRIBUTIVE LAW OF WAGES

I. *The Cheapening of Production.*—Attention has been directed to the effect of the Quantitative Law in multiplying the openings for labour skill, and to the operation of the Qualitative Law in concurrently raising the rewards and lowering the costs of production.

It is evident, however, as soon as we come to consider productive results in terms of money as well as in terms of volume—and it is with the results in money that wages, as such, are concerned—that money results and volume results are not necessarily the measure one of the other.

Experience proves that results may increase in volume, but that, save in exceptional instances, results in money do not keep pace with volume. The exceptional instances are those in which price may be artificially kept up despite fall in production costs.

Though costs on the one hand, including raw material costs, and the money value of the finished product on the other hand, are alike variables, their variations are not, taking a broad economic survey, haphazard.

Every improvement in production, whether arising from the saving of human labour in quantity, the

saving of time, or increase in the ratio of skilled to unskilled labour—and nearly every improvement has *all* these consequences in varying degrees—has for its final effect the cheapening of production.

An instance has been given of the production of cotton yarn. But there is hardly a modern productive process—agricultural, mining, or manufacturing—which compared with the conditions of human-cum-horse-power labour has not been as strikingly lowered in cost.

The effect, could final prices have remained what they were, would, of course, have been a corresponding enhancement of labour rewards.

II. *Why Final Prices Fall.*—But final prices have fallen as costs of production have fallen, and it will be seen, if a little thought be addressed to the matter, that it was, and is, out of the question for final prices to remain unaffected where costs of production have been reduced.

It is out of the question in the first place because, when we put aside untested theory and come to actual fact, non-effect on final prices is impracticable, and in the second place because the interest of producers themselves is against non-effect. Despite the assertion that the interest of producers is always to keep prices unreduced, and all the saving in costs to themselves, men do not act upon that rule, and they do not act upon it because it is *not* their interest to act upon it.

Improvement in industry with saving on cost does not take place all the way round, and all at the same

time. Industry does not advance in a succession of kangaroo jumps. Industry advances with a flow. Where improvement occurs in a line of business, if that business did not revise its prices, its market would remain just as before. But being now able to do so owing to the saving on costs, it lowers its prices in order to enlarge its market; for it is by the enlargement of the market that saving in production is most successfully exploited.

If improvement and saving did not have these effects, not only would they be much less worth while, but industry would come to present the picture of small "pockets" of improved and profitable venture amid an expanse of unimproved venture deriving no advantage whatever from the improvements. Improvement under these conditions would make no headway.

III. *The Distributive Law.*—But industry never has presented such a spectacle because it is well known, and a proved economic fact, that decrease in arithmetical ratio in the price of any commodity of general utility sets up an expansion of demand in a geometrical ratio. Hence the inducement for the producer to revise his price. His motive is his own advantage, but in order to reap that advantage through expansion of demand, he must pass on part of the saving to the consumer in the form of a lower price. To that there may be exceptions, but it is none the less true, and the exceptions go to prove it, that the *benefit of saving in production costs tends to be shared in equal or approximately equal proportions between producers and consumers, and at*

one and the same time to increase earnings and lower prices.

That is the Distributive Law.

The tendency may rightly be termed a law, because it is both abiding and universally true. But observe that it is a tendency and not a proposition to be tested by hard-and-fast equality of division. The benefit *tends* to be shared equally. It may be, here and there, and for a time in this instance or in that, obstructed by political influences, legislation, for example, or by close corporations of producers. None the less the truth of the Law as the economy tendency remains.

Let us see how the tendency works and how the motive which actuates it is called into play.

Take once more the formula :

$$\frac{N}{2}\ \frac{T}{20} = R, \text{ or } NT = 40R.$$

Here the result, were there no motive for distributing the advantage, would remain 40R for the given number employed and the given time taken. But the Distributive Law, through motive, comes into play. Assuming that, owing to that motive, price is reduced to one-half, we should have the result :

$$40R = 20V,$$

where V is the money value symbol for the reduced price. But with price reduced to one-half, demand will be quadrupled, so that the result then is :

$$160R = 80V.$$

As the economic tendency avoids both extremes, the desire to turn savings on costs to the best account by enlarging the aggregate of earnings is quite efficient.

It would be useless to cheapen and enlarge output without cultivating a market for the output. A gradual lowering of price—transfer of part of the benefit to consumers—is the means of ensuring the market.

While exhibiting in particular instances all sorts of more or less temporary variations, the tendency works towards a balance.

IV. *Producers Distribute Saving.*—Now on that result there is four times the production cost saving that there would be on 40R; and notwithstanding that half of it has been conceded to consumers on the price, there is still double the saving realised and retained. At the same time, while there is a broader benefit to consumers, four times the employment is afforded to producers.

The Distributive Law does not work through the demand of consumers to be supplied at a less price; it works through play on the interests of producers, and through response of consumers to price concession. And it will be found that it has always been through their instinctive appreciation of the truth of this Distributive Law that men of business genius have conquered success and climbed to fortune.

Apart from the working of this distributive tendency one of two things in regard to money values would happen. Either the producer would keep all the saving, in which case, as said, prices would not be affected by industrial progress, and demand would

not be widened, or else all the increase would be passed on to consumers, in which case industrial progress would come to a dead stop.

The Distributive Law avoids both extremes. *It is through the operation of this law that demand keeps pace with production.*

V. *Purchasing Power and Wage Rates.*—It has been urged as part of "the secret of high wages" that if producers keep the whole of the increased reward, the enhancement of their purchasing power enables prices to be maintained, and hence high prices mean high wages. And it is also a common contention that fall in prices, by reducing purchasing power, tends to reduce wages. This argument is the foundation of the belief that prices and wages rise and fall together.

But the argument overlooks a vital consideration. If every group of producers consumed their own products, the argument might apply, for every group of producers could fix their own price to themselves at any figure within their fancy, and it would make no difference whatever.

But producers do not, as a rule, consume their own products. The products have to be exchanged, through the medium of money, against those of other producers, and a motive has to be set up favourable to exchange and facilitating it. The motive is reduction in price.

As a fact, where currency is on a basis of stability, increase in purchasing power due to growth and lessened costs of production is both direct and indirect. It is direct so far as regards the enhanced reward retained

by producers; it is indirect so far as fall in prices raises the buying power of earnings.

A fall in prices due to increase in the volume of production and fall in production costs, therefore, *does not mean a decrease in purchasing power.*

Partly, owing to the working of the Distributive Law, the benefit of an increase in the volume of production and fall in its costs inures to producers in the shape of higher earnings, and partly to consumers in the shape of lower prices and the greater buying power of money. But since the producers in the mass are the same multitude as the consumers in the mass, the whole benefit, partly direct and partly indirect, is retained. The amount knocked off earnings owing to fall in prices is not knocked off absolutely and lost; it reappears in the form of the improved buying power of the earnings. Consequently there is no loss in the total purchasing power of the community.

Real wages, owing to the operation of the Distributive Law, always tend economically to increase in one degree or another according to this dual mode—by extension, as it were, at both ends.

Conversely where there is decrease in the volume of production and rise in its cost, *real* wages tend economically to decline in the same manner—by shrinkage at both ends.

VI. *Where and Why Rising Wages and Falling Prices are Concurrent.*—The truth therefore is—and it is a truth confirmed by experience, just as the contrary assumption is disproved by experience—that *rising wages and*

falling prices, if due to increase in production alone, are concurrent, and falling wages and rising prices, if due to decrease in production alone, are concurrent. Hence an important corollary of the Distributive Law, which may be stated thus:

Progress in production at one and the same time raises wages and lowers prices, and conversely regress in production lowers wages and raises prices.

Here the question posed is purely one of the influence of the *economic* tendency on wages and prices, and excludes altogether influences arising either out of the greater or less supply of money, or out of taxation, public policy, or political causes of any kind.

As regards the belief that wages rise as prices rise, so far as the rise in prices is due to an expansion in the total of the currency, that is true. It is, however, the exact reverse of the truth so far as regards the production cause.

When the cause is the progress or the regress of production, and is general in its operation, the effects are a simultaneous, direct and indirect, rise in *real* wages or a simultaneous, direct and indirect, fall in *real* wages.

In Great Britain during the second half of the nineteenth century the average level of wages rose by 100 per cent., and the level of prices concurrently fell 100 per cent. The average of *real* wages was quadrupled.

And in Great Britain during the first quarter of the present century, the level of wages has tended to fall while prices have tended to rise.

The former result, admittedly, was practically wholly due to economic causes; the latter represents a complication of causes, partly economic, partly political. But to the extent that production has regressed, the economic cause has had the effects described.

VII. *The Question of "Glut."*—It is often supposed that production, multiplied by mechanical labour-power, is in danger of overdoing itself and producing a glut. Here and there a glut may arise, though this is not often the outcome *wholly* of excess production. More often it is due to difficulties of exchange, or to imperfections in, and checks upon, distribution.

But a *general* production glut is impossible for the reason that, as human wants have no assignable limit, no sooner is the "saturation" point reached in one line, than demand forthwith begins to vary itself. Whenever the demand for necessaries is met, the demand for elegancies and refinements springs up. So far, however, not even the world's demand for necessaries has been fully covered.

The fear of over-production is a fear of what may happen assuming that production goes on without change in the same old ruts. But production, as it increases, cannot go on in the same old ruts. Through the effect of the Distributive Law it is *compelled* to develop variations.

VIII. *Influence on Chain of Services.*—A remarkable example of how the wage rates of an industry may be influenced by events outside it is offered by the history of coal-mining. In England at the end of the eighteenth

century the wages of coal-miners ranged from 8*s.* to 16*s.* per week, and although these rates of wages, with the purchasing power of money little different from what it is now, were miserably low, they nevertheless represented a high labour cost. They represented that high cost because the then early type of steam engine was wasteful in consumption of fuel, and users of coal, for power production, could not afford to pay more than a limited price for it. During the intervening 130 years successive improvements in the steam engine have reduced coal consumption per unit of indicated horse-power to approximately one-tenth of the original consumption. Mechanical labour-power derived from steam is in consequence now developed at one-tenth the fuel cost. The result of this has been that the wages of coal-miners in Great Britain, at present ranging from 45*s.* to 80*s.* per week, have increased fivefold. Notwithstanding that increase, the fuel cost of steam-power has been cut down to one-half. In this instance the advantage of the saving has been shared as nearly as possible equally between the producers and the consumers of coal.

The same effects, arising out of increase in the fuel value of coal, and resultant expansion in its use for power production, appear in the record of coal-mining wages in Germany and other countries on the continent of Europe, as well as in coal-mining wages in the United States. If the wage rise in those cases has been less striking than in Great Britain, it is because their coal-mining industries have not so long a history. But

practically modern coal-mining has been developed through the economies realised in the use of coal as fuel.

This example goes to show that when an important improvement is brought about, creating a saving for one section of producers—here the users of coal for power purposes—it will spread to other producers in the chain of services. Thus a remarkable fall in the costs of a manufacture not only reflects itself in the earnings of the immediate industry, and in the final price of its products, but will be reflected in the price of the raw materials, since the greater demand for them will correspond with the greater demand for the cheaper finished product. The price of raw materials will then *rise, and in that manner their producers also share in* the saving.

In other words the remarkable fall in the costs of manufacture brought about by the invention of the steam engine and its successive improvements, not only reflected itself in the costs of manufacture and in the final prices of manufactured products, but reacted back on the price of coal and other raw materials. Coal and other raw materials were raised in economic value. In turn this rise in value stimulated their production. The final effect of any notable productive improvement, in short, is to expand earnings and reduce costs, in one degree or another, from the production of raw materials to the use and consumption of the finished goods.

IX. *Who are Consumers?*—Usually by the term "consumer" is meant final consumer. But at every stage in a chain of services the consumers are those

who work up material in the succeeding stage. To the cotton planter, spinners are "consumers"; to the spinner, the manufacturers and finishers; to the manufacturer, the distributors; to the distributor, his customers. Hence the spread of a cost saving in a greater or less degree all along the line.

X. *How the Law Works.*—Though at first sight it might appear as if the Distributive Law were not favourable to increase of wages, as a fact, where set in motion by fall in production costs—and it is the more marked in its operation in proportion to such falls—it always is favourable, for it acts as one of the main influences which increase employment. The more *actively it is in operation, the more rapidly will* wages on account of it rise.

Where, however, there is regress in production, the Law acts with what may be called a "taking-back" effect. On a rise in production costs the producer makes an effort to cover the rise, and revises prices upwards. That contracts demand, and lessens employment. With lessened employment even should wage *rates*, owing to collective bargaining, not be reduced, the wage-earning *total* is. Under these conditions, employment tends to become more casualised.

And with a regress in production, there takes place in due course, should the regress be more than temporary, a converse effect "all along the line" in the chain of services. From the production of the raw materials to the use or consumption of the finished goods, there is a rise in costs and a fall in earnings.

CHAPTER VI

THE COMPETITIVE LAW OF WAGES

I. *What the Wage Problem Really Is.*—There is little practical use in discussing a Theory of Wages unless the truth be kept in mind that the wage problem at large is made up of the separate wage problems of the innumerable enterprises, big and little, in every branch of productive and distributive activity.

Every enterprise which relies upon hired services has its own wage problem, because in every instance the factors, alike of costs and of results, are variables both in detail and in sum.

The wage problem, besides, as already pointed out, is in every instance as much a problem of the quality of services as of their quantity.

The theory that wages fall when and where "three men seek to fill two men's jobs," and rise when and where there are three jobs offering and only two men to fill them, and from those causes alone, is theory of the type belied by common experience. Nobody can point to any instance where, as a general state of things, employment has been 50 per cent. above the labour available, or any approximation to 50 per cent. It is simply an impossibility. Nor can anybody point to

any instance where employment *from economic causes* has fallen to 50 per cent. below labour available. Falls of that kind, where they have occurred, have arisen from the economic consequences of *political* causes. They are catastrophic, exceptional, and, for those reasons, transient.

But apart from the ratio between the quantum of employment on the one hand, and the quantum of labour on the other, engagements of services are not, in the world of fact, " Dutch auctions " in which the man willing to take the lowest wage gets the employment. In 99 cases out of 100 the man willing to take the lowest wage would not be worth even that wage because not fit for the job.

The quality of the service sought—" fitness for the job "—is a primary consideration, and it is because of that primary consideration that, save in the rarest cases, the employer offers the wage which it is judged will command the fitly qualified employee.

II. *The " Market Price " of Services.*—The further fact is that the rate of wages offered for the grade and character of services required is influenced by prevalent ideas and usages as to the payment for that class of service.

In a word, *services have their price exactly like commodities*, and the price is arrived at exactly in the same way—it reflects the common current estimate in money values. It is a " market " price.

And, like every market price, it is arrived at not only on the ratio of supply to demand, but upon quality and

grade, though in regard to services there is this difference that the shadings of quality and grade are finer and more various.

Also, like every market price, service price is adjusted to the common purchasing power of money for the time being.

Like every market price, too, it rises with speciality and rarity, and falls in proportion to lack of speciality and rarity.

Therefore, on the basis of the common purchasing power of money for the time being, the market price, as a general estimate, reflects—

(1) The current economic values of ability and skill according to their grades, plus speciality and rarity, or the converse;

(2) the economic influences—which will be touched upon in a moment—tending to lessen the extremes between the top and bottom market prices.

III. *Based on Modern Labour Costs.*—As regards the economic values of ability and skill, from the highest right down to the lowest, it is of consequence to bear in mind that *they are arrived at also on the basis of labour costs as those costs have been affected by the creation of mechanical labour-power.*

In short, the current economic values of ability and skill are influenced not only by the quantity and quality of labour available in ratio with the employment offering, and not only by the purchasing power of money

for the time being, but by labour costs. They are influenced further by employment risks; by "collective bargaining"; by legislation; and by the ideas established by custom on the level of living.

Hence the market price of services, so far from being a simple thing, is even more of a complex than the market price of commodities.

Nevertheless there is a constant economic influence tending towards balance in wage rates.

IV. *Risk-cost.*—Attention has been directed to the factors of overt cost, and to the laws governing the employment of labour at an economic advantage. We have now to deal with the element of covert cost—the element of risk.

When mechanical labour-power is created and equipped a risk is taken; in part associated with the supply and cost of raw materials; in part with current production costs; in part with demand for and the price of the finished product.

Now it is evident that all the co-operators in an enterprise, whether the persons who put up the capital to create and equip the mechanical labour-power, or the staff engaged, or the manual labour employed, must, in one degree or another, share these risks. They all look to derive income and livelihood from the earnings of the adventure—from its ability to create new money values.

But it has become the usage, deriving from the historical form impressed upon the relationship between employers and employed, that practically all the risk

shall ostensibly be taken by the creators and owners of the mechanical labour-power. Where the staff are also the owners of that power, they accept this condition; where they are in part the owners they accept the condition proportionately; where they are non-owners their recompense may be made, by the terms of their engagements, to some extent dependent on the money results realised.

Hitherto it has not been the allowed rule that manual workers should share in the risk. There are exceptions, of course, and in many forms, the most important of them being piece-work agreements. None the less the usage of a determinate pay-roll for manual workers has continued preponderant. While due largely to tradition, the usage also reflects the difficulty of assessing unskilled manual labour upon output.

Further, as manual workers in the mass depend upon their labour, and immediate payment for their services is recognised as a necessity, the usage is to pay them in advance of the realisation of results.

But apparent non-acceptance of risk, so far as they are concerned, together with payment of wages in advance of realised results, have tended to lower the level of—in effect to discount—manual workers' wages. In assessing the wages of manual labour some margin against risks has to be maintained, and it is *in the form of this margin that manual workers bear their share of the risk-cost.*

V. *Its Rise and Fall.*—Where the state of industry is settled, capital increasing and cheapening, and the

facilities for the creation of mechanical labour-power in consequence encouraging, new enterprises will start up, and the demand for manual labour services will be expansive.

Furthermore, under such conditions risk-cost is at its lowest.

Alike, therefore, from the expansive demand for services, from the fall in risk-cost, and from the lower return capital is then prepared to accept, the wages of manual workers will tend to move up, and will tend towards a maximum.

Conversely where, from political or other causes, the state of industry is unsettled, capital from the same causes decreasing and growing dearer, the facilities for the creation of mechanical labour-power narrowed, and the starting of new enterprises in suspense, while old enterprises are disappearing, risk-cost is at its highest.

Under those conditions the wages of manual labour will fall, and tend towards a minimum, for the rise in risk-cost, the rise in the cost of capital, and the contracting demand for services will all contribute to depress them.

The rise and fall of wages is not satisfactorily explained by saying that they move up or down as the demand for labour in quantity is greater or less. The statement is so bald as to have no real meaning.

Demand, and the rise and fall of demand, is but the sign of a complex of constituent influences.

VI. *Illustrations of Risk-cost.*—In agriculture risk-cost includes the possibility of loss through bad seasons,

drought, ravages of pests, unlooked-for disappointment of markets, outbreaks of disease among stock, damage to equipment, loss by fire, and variations in the cost of fertilisers.

In mining it includes possibility of seams giving out or proving unpayable; fire, flood, and explosion; price fluctuations of the product, and in costs of stores and timber; increase in depreciation of equipment, and bad debts.

In transport it includes fire, flood, and storm; variations in the cost of maintenance and renewal; ditto in the costs of fuel and stores; and claims for demurrage, damage, theft, and loss of goods in transit.

In manufacture it includes variations in the costs of raw materials, power, renewals, and the price of the finished output; damage to stock in trade; loss by fire, and bad debts.

While the direct fire risk is usually covered by insurance, the indirect business-loss risk due to fire is not.

These may be called ordinary or normal risk-costs, but over and above there may be general and abnormal risk-costs springing from, and incident to, political unsettlement and disturbance, labour disputes, restrictive labour rules, the incidence of heavy public taxation, and debasements of the currency.

Risk-cost, in brief, is the whole range of the world's troubles, natural and man-made, taken from the viewpoint of their impingement on industry. From bad weather to bad ideas, they all cost money.

VII. *Modern Competition.*—Under modern conditions

competition does not lie in three men seeking to fill two men's jobs. Competition, on the scale on which economic influences come into play, lies in the division of the results between the three groups now comprised in most, and always comprised in large, present-day industrial adventures—the capitalist owners; the staff, so far as it is distinct from the owners, and the manual operators.

Now if, as a sequel to the practice of collective bargaining, it is claimed, as it has been, that the pay-roll of manual operators should form, on social grounds, the first charge on industry, the effect is to throw the whole burden of risk-cost on to the other two groups. If, besides, risk-cost be added to by the practice of limiting output, and reversing improvement in the Time factor, then the burden, thus weighted, of fluctuations in the fortune of the adventure will be so shifted that its equilibrium becomes unstable. This instability acts as a discouragement of employment.

VIII. "*Law of Diminishing Return*" *Double-edged.*—As regards the staff, recompense must at least command the ability needed to enable the enterprise to be carried on. It has already been pointed out that under the Law of Diminishing Return there is an economic surplus from the actual ability value of staff services over their actual cost. This surplus ability value inures for the benefit of the manual operators, and is reflected in their rate of wages by the operation of the same law, for while above a certain level, which may be called the common living standard level, the economic Law

operates to diminish return; *below that level it operates to increase return.* Like other economic tendencies, the Law works to lessen extremes in both directions—down as well as up. It tends to diminish earnings in degree as they rise above the common living standard level; but it also tends to increase earnings in degree as they fall below that level. Earnings in short are rarely *strict* assessments of the economic values of services. They are mostly usage assessments, tending to become diminished at the top of the scale, and to be increased at the bottom of it. The influence of the common living level makes itself felt both above and below.

Here, in passing, it may be noted that onerous rates of income-tax and super-tax act as checks on the Law of Diminishing Return. The economic Law does not then function with the same scope or margin of elasticity, and because it works down as well as up, there is a decrease of the inuring benefit, and the decrease tends to lower manual labour wages.

There is a limit beyond which the recompense of ability cannot be squeezed—the limit at which ability ceases to react to economic incentive. The economic loss due to such a cause is positive and, if general, is disastrous.

IX. *Risk-cost Distribution.*—The effect, should the recompense of ability be forced down to its minimum, and the pay of manual workers at the same time accepted as a first charge not subject to fluctuation, is that the entire risk-cost is then shifted on to the owners. Since

under those conditions the fluctuations of risk-cost become much more pronounced, the distribution of risk is then raised to its maximum of instability.

In circumstances such as these, the return which capital asks for its services-plus-risks tends to become so high as to be prohibitive of new enterprise, the more so as much of the capital embarked in existent enterprises will under such conditions be lost.

Where this occurs, the rewards of ability being at the same time at their lowest, the checks to enterprise and to the exertion of ability will bring about a marked fall in manual employment, and that contraction in employment will continue until manual wage rates have sunk back to the level at which the distribution of risk-cost in stable equilibrium is restored.

Restoration of stable equilibrium has the effect both of reducing the risk-cost element in the return on capital, and of bringing the Law of Diminishing Return into play as regards staff costs.

Such is the interplay of economic influences. They steadily and abidingly make for balance, and they punish lack of balance.

But they punish lack of balance not in one direction only. They equally penalise lack of balance when wages are so far forced down as to shift the whole burden of risk-cost on to the manual operators. There is then, once more, instability, for the result is loss of efficiency and rise in manual labour costs, and these adverse effects will continue until, through readjustment of wages, stable equilibrium is regained.

X. *The Competitive Law.*—Following these explanations we can formulate the *Competitive Law of Wages.* The Law is that:

Economically the distribution of risk-cost tends towards an equilibrium as between the three components of industry. Where rise in wage rates throws the distribution into unstable equilibrium, the resulting checks to employment will tend to reduce wage rates until stable equilibrium is restored; and where fall in wage rates throws the distribution into unstable equilibrium, the resulting increase in labour costs will tend to raise wage rates until stable equilibrium is restored. Economically, therefore, wage rates tend to adjust themselves to the level at which risk-cost is equally distributed over the components of industry; that is, the level at which the risk-cost borne by each is proportionate to the contribution of each towards results.

It may be thought that risk-cost is not in industry an element of much importance. Where industry is settled, prosperous and expanding, risk-cost, it is true, may fall to a moderate, or even low, percentage to turnover. Where, however, industry is unsettled, struggling, or changing rapidly in form—and rapid change may be a symptom of decline as well as of growth—risk-cost rises to a high percentage to turnover. Through the fall or rise of risk-cost success begets success and failure breeds failure.

As an influence on profits, salaries, and wages, risk-cost is always existent, though its influence varies both generally and as between different industries.

Most modern businesses and companies provide

against it by allocations to reserve. Should risk-cost be high and the ability to cover it by allocations to reserve be impaired, the enterprise is in danger.

Not by any means, therefore, is risk-cost a negligible factor. On the contrary, it fully justifies the importance here assigned to it.

XI. *Wage Rates not Arbitrary.*—And it deserves that importance because the consequence of the Competitive Law is that *rates of wages and divisions of rewards are not determined by, or dependent merely upon, the arbitrary will of any one of the components of industry. None of them can, by arbitrary will, raise or depress wages and maintain the rise or the depression in defiance of the economic tendency.*

If that simple, though supremely valuable, truth were grasped and understood, the costly and futile "industrial wars" of the modern world would cease to discredit human good sense and disfigure understanding.

For it is a further consequence of the Law that what appears to be gained by pushing demands to an extreme is *always* more than counterbalanced by the consequential loss.

Thus where, through the force of collective action, wage demands are pushed up to an extreme, the apparent gain in wage rates is, owing to the effect on employment, more than lost in the total and the average of earnings.

And where, through the force of collective action on the part of employers, wages are driven down to an extreme, what is gained in wage rates is more than lost

in the lowered incentive and lessened efficiency of labour and the rise in labour costs.

Once more, if in the one instance the effort, because of fall in the total and average of earnings, is made still further to drive up wage rates, the bad effect on employment is emphasised in an ascending curve. If, in the other instance, the rise in labour *costs* incites to a further effort to reduce wages, the increase in labour costs is in an ascending curve.

Men imagine that in these matters there is no limit to their wills. *There is a limit.* All experience, if they but read it aright, thunders its "no" to their supposition.

It was the practice in most countries in the earlier phases of the modern wage system, when the bargaining power of manual labour was feeble, to drive down wages, and when that failed to lower costs, again to drive them down.

This led to a whole train of industrial evils—evils as great for employers as for employed.

XII. *Collective Bargaining.*—The practice and its consequences brought about "collective bargaining"; and "collective bargaining," in that defensive stage of its existence, was, after all, but an instinctive groping towards the assurance of economic equilibrium in apportionment which is beneficial to every one of the constituents in industrial co-operation.

In regard to wages, fair dealing is the only true economy. Wherever fair dealing is despised men come up against the Economic Law, and when it hits back, it hits hard.

The tendency of risk-cost to balance itself out as between the three components of industry, is constant because lack of balance sets up friction, and the friction becomes more and more marked the more equal distribution is upset. In turn the friction reacts back upon risk-cost and forces it up. Hence, in the case of the employer, the conscious motive through which the Competitive Law acts is desire to reduce friction and risk-cost as far as possible, and, in the case of the employee, the fear of losing, or reducing, his chances of employment.

CHAPTER VII

PRICES AND WAGES

I. *Key to Prices—Wages Relationships.*—In setting out the Laws of Wages, references have of necessity incidentally been made to the relationship between Wages and Prices.

Probably no question in economics has given rise to such a mass of inconclusive discussion.

As, however, the question is of the greatest practical importance, and its solution an indispensable part of any complete Theory of Wages, it will be here dealt with in a systematic form, and the reader given the key to the apparent difficulties.

The key is, in fact, found in the Distributive Law, which proves that increase of production, while it lowers prices, raises wages because that increase of production is itself the index of a fall in labour costs. Conversely the Law proves that decrease in production raises prices and lowers wages, because it is the index of a rise in labour costs.

The key is found in the Distributive Law owing to the two economic causes which most broadly and generally influence prices.

One of them, and the more important of the two, is, as already pointed out, increase or decrease of production.

The other is increase or decrease in the supply of money where money is on a basis accepted as of reliable value —for example, gold.

This second cause reflects the increase or decrease, relatively to production, of the world's stock of gold used as a monetary medium.

With a relative increase in the supply of gold, prices rise, and as wages are equally and in the same manner affected by this cause—fall in purchasing power of money—they also rise correspondingly.

Similarly, with a relative decrease in the supply of gold, prices—reflecting the rise in the purchasing power of money—fall, and wages, equally affected, fall to the like extent.

In either case, after adjustment has been made, there is no change in *real* wages.

But it will have been noted that what may be called the "Production Cause" has not the concurrent levelling-up or levelling-down effect on prices and wages alike which the "Gold Cause" has. The effects of the "Production Cause" on prices and wages are, as proved, opposites. *The "Production Cause," instead of having no effect on real wages, has the maximum effect, either up or down as the case may be.*

Where the apparent difficulty crops up is that the two economic causes, when both are operative, as they usually are, give *actual results on prices and wages which represent their combined operation*, and as it is exceptional to find one or the other acting alone, it is, of course, necessary, if the results are to be read aright, to allow

for the fact that the consequences *are* combined, and not simple.

II. *Effects of Gold Movements.*—But over and above the broad economic cause of increase or decrease in the world's stock of gold used as currency, there is the distribution of that stock.

The distribution may be even or uneven. It is even when governed or determined by economic influences and by those only; it becomes uneven when disturbed by political causes and political policy.

Where it is so disturbed, the effect on prices and wages in any country subject to the disturbance is, for the time being, precisely the same as that of an increase or a decrease in the world's supply.

A state of more or less uneven distribution existed in Europe up to nearly the close of the eighteenth century, for the principle alike of the "Mercantile Theory," and the aim of the public policies based upon it, was to obstruct free international movement of gold—in other words, to disturb its purely economic distribution—as far as possible. The "Mercantile Theory" assumed wealth to be synonymous with the precious metals.

One of the beneficial consequences of the free international movement of gold established in the nineteenth century, therefore, was that, contributing to a more even and economic distribution, it lessened and narrowed over a large part of the world the formerly politically aggravated local effects of the "Gold Cause" on prices and wages, and through that lessening left the "Production Cause" more complete and unobstructed play.

III. *Relations to Volume of Credit.*—Variations of, and freedom or otherwise in, the even and economic distribution of gold are of all the greater consequence because, with modern methods and developments of banking, they govern variations in the volume of credit based upon the gold supply; and as the gold supply in any modern commercial and industrial country is but a small percentage of the credit volume based upon it, it follows that, as the gold supply varies, the volume of credit will vary, and, apart from deliberate measures of control, the variation in the credit total will be in proportion to the greater volume of credit. It is these greater total variations in the credit volume which explain the violent post-war fluctuations in international exchange rates. The purpose of a free movement of gold is not only, by means of exchange rate adjustments, to ensure an even and economic distribution of the metal as the basic medium of world exchange, but incidentally to steady the credit-volume swellings and shrinkages.

IV. *Tabulation of Combined Results.*—After that general explanation, it may be added that, as the combined operation of the two economic causes and their combined consequences would be difficult to follow through their permutations by the ordinary method of description, a tabulation of the combinations and their effects, embodying a mass of recorded experience, is here given in a form at once brief and convenient for reference. In the table are included, because of their importance, the effects on the rate on money:

"GOLD CAUSE" ALONE OPERATIVE.

Gold supply.	Effect on rate on money.	Effect on price level.	Effect on money wages.	Effect on real wages.
Expanding.	Fall.	Rise.	Rise.	Slight to nil.
Contracting.	Rise.	Fall.	Fall.	Slight to nil.

"PRODUCTION CAUSE" ALONE OPERATIVE.

Production.	Effect on rate on money.	Effect on prices level.	Effect on money wages.	Effect on real wages.
Expanding.	Rise at first, then fall.	Fall.	Rise.	Concurrent direct and indirect rise.
Contracting.	Fall at first, then rise.	Rise.	Fall.	Concurrent indirect and direct fall.

BOTH CAUSES OPERATIVE—COMBINED CONSEQUENCES.

	Effect on rate on money.	Effect on prices level.	Effect on money wages.	Effect on real wages.
Gold supply: expanding.	Fall.	Rise.	Rise.	
Production: expanding.	Rise at first, then fall.	Fall.	Rise.	
Combined effects.	Fall tending to become more marked.	Slight to nil.	Emphatic rise.	Emphatic rise (direct).
Gold supply: contracting.	Rise.	Fall.	Fall.	
Production: expanding.	Rise at first, then fall.	Fall.	Rise.	
Combined effects.	Rise tending to become less marked.	Emphatic fall.	Slight to nil.	Emphatic rise (indirect).
Gold supply: expanding.	Fall.	Rise.	Rise.	
Production: contracting.	Fall at first, then rise.	Rise.	Fall.	
Combined effects.	Fall tending to become less marked.	Emphatic rise.	Slight to nil.	Emphatic fall (indirect).
Gold supply: contracting.	Rise.	Fall.	Fall.	
Production: contracting.	Fall at first, then rise.	Rise.	Fall.	
Combined effects.	Rise tending to become more marked.	Slight to nil.	Emphatic fall.	Emphatic fall (direct).

Explanation of terms.—"Slight to nil," where the *plus* of one cause more or less cancels out the *minus* of the other, or vice versa. "Emphatic rise," where both causes are *plus* factors. "Emphatic fall," where both causes are *minus* factors.

V. *The Business Barometer.*—This table deserves attentive study because of the light it throws on influences hitherto assumed to be either uncertain or obscure.

The effect of the "Gold Cause" on the rate on money is immediate; on prices rapid, and on wages slower, because of the greater difficulty or "friction" presented by wage adjustments.

The effect of the "Production Cause" on the rate on money is gradual, on prices more speedy, and on wages gradual again because of the less easy adjustment of wage rates.

The influence of foreign investment, which works in association with the free movement of gold, and with its economic distribution, is to lessen the effects of an inflow of gold, but to emphasise the effects of an outflow.

Increase in the supply of gold tends to increase production because it tends to cheapen the rate on money. Decrease in the supply of gold, on the other hand, tends to decrease production because it tends to raise the rate on money.

Hence where there is *concurrent* increase in the supply of gold and in production, though prices will show little movement, the rise in wages, nominal and real alike, will be rapid, and the rise in *real* wages is *direct*.

Where there is concurrent decrease in the supply of gold, but continued increase (for the time being) in production, though the effect on wage rates may be slight, the effect on prices is to bring about their rapid fall. For the time being, therefore, the decrease in the

supply of gold (plus contraction in the volume of credit) tends to convert the direct rise in *real* wages into an *indirect* rise. Such an indirect rise, however, is more difficult to maintain than a direct one owing to the tendency of employers to demand money wage reductions because of the prices "slump."

Where the gold (plus credit) supply is expanding and production falling off, prices will tend to rise with a double impetus, and the effect on money wages is small. But this prices "boom" means an emphatic fall in *real* wages, and demands for wage increases will be advanced by employees.

The worst of all state of things is where the gold supply and production are contracting at the same time. The effect then is a rapid fall in money wages, which is equally a rapid and direct fall in *real* wages. That state of things leads to grave industrial disturbance. It is the economic equivalent of a "storm" depression; just as, conversely, the state of things in which the gold supply and production are both expanding is a condition that may be termed anti-cyclonic, or "set fair."

VI. *Advisable Monetary Policies.*—Under "storm" conditions the first measure necessary to relieve the situation is by rise in the Bank Rate to get in gold, and increase the volume of credit based upon it.

This is the first measure, because the effect on the rate on money is immediate, and a gold inflow changes the situation into that (already described) in which prices will tend to rise, leaving the influence on money wages small. But the buoyancy of prices will in turn

tend to revive production and employment, and if production, under that stimulus, again becomes expansive, economic "fair weather" will be the result.

On the other hand, under "anti-cyclonic" conditions, though a central bank would then lower its official rediscount rate in order to keep the situation steady, it could not put the rate down so low as at once to provoke an outflow of gold and encourage an outbreak of speculation.

The tabulation, it will be seen from these comments, has practical value as a business chart.

VII. *Some Historical Examples.*—Some notable historical examples of the states of affairs given in the table are as under:

Gold Cause alone operative; supply of the precious metals expanding. Europe in the sixteenth and part of the seventeenth centuries.

Gold Cause alone operative; supply of the precious metals contracting. India at the date of the British occupation. The contraction was due to hoarding.

Gold Supply and Production expanding together. The United States at the present time.

Gold Supply and Production contracting together. Southern and Western Europe during the last period of the Roman Empire.

Gold Supply expanding, and Production contracting. Great Britain during part of the years 1925 and 1926.

VIII. *Influences of Taxation on Wages.*—There remain the political influences.

Increase of taxation through its adverse influence on

production and employment causes, speaking generally, a *rise* in prices and a *fall* in wages.

Decreasing taxation through its favourable influence on production and employment causes, speaking generally, a *fall* in prices and a *rise* in wages.

Debasement of the currency (inflation) causes an immediate and corresponding rise in prices, and it affects *real* wages by reducing them through the "lag" in the adjustment of money wages to the new prices level.

Restoration of the currency in value (deflation) causes a fall in prices, and it affects *real* wages by raising them where "lag" occurs in money wage adjustment.

This "lag" has been conspicuously evident in the "sheltered" industries in Great Britain, and most of all in the largest of them—official employment.

IX. *The Economic Principle.*—The conclusion pointed to by the facts summarised in this chapter is one of great economic importance. The conclusion is that—

It is not prices which economically determine rates of wages, nor rates of wages which determine prices. Prices and wages alike are economically determined by (1) *the volume and value of the aggregate of production, and* (2) *by the measure of that value for the time being in the medium of exchange.*

This is the economic principle which alone the widest induction from facts and experience demonstrates to be true.

To sum up this part of our inquiry, the "Gold Cause" sets up change in the purchasing power of money, as money. Nominally, or in its denomination, money is

always the same; actually its purchasing power is subject to constant fluctuation. The dollar is always the equivalent of a certain weight of gold, and always divided into 100 cents, just as a foot-rule is divided into inches. But if the foot-rule, instead of being made of a piece of boxwood invariable in length, were made of some substance which expanded when warmed and contracted when cooled, it would offer an analogy with the variation of money as a *measure* of values. As this measure is applied to commodities and to services alike, it follows that its changes must affect them alike, though owing to the "lag" in the influence of the change on wages the effects may not be simultaneous.

But the "Production Cause" sets up a change in the *volume* of values. Increase in production means that more values are being turned out, and more services of all kinds (including mechanical labour-power services) are being employed to turn them out. Decrease of production means that fewer values are being turned out, and fewer services employed. Hence, where the volume is increasing, though the prices of commodities tend to fall, the price of services will tend to rise, and where the volume is decreasing, while the prices of commodities tend to rise, those of services tend to fall.

As reflected in their combined effect on prices and wages, these different results of the two causes have appeared to be puzzling, and the puzzle has appeared to be all the more a puzzle because it sometimes happens that, owing to the "lag" in the influence on wages, the

effect on wages is making itself felt when the effect on prices is disappearing or even has disappeared.

The tabulation, however, enables the operation of the causes to be traced. From the tabulation the consequences of any ascertained situation as regards the money supply and the state of trade can be reliably inferred.

CHAPTER VIII

FLUCTUATIONS IN WAGES—MAXIMA AND MINIMA

I. *Combined Consequences of the Laws.*—Taking the four laws of wages together we have these results:

Firstly, a reduction in labour cost through the saving of human labour in quantity.

Secondly, and as a consequence, a translation of human labour from unskilled to skilled.

Thirdly, as the effect of that translation, a progressive increase in labour rewards in ratio with labour cost.

Fourthly, the tendency towards an equal division of this increase between producers and consumers, leading to rise in *real* incomes and *real* wages through concurrent rise in money rewards and fall in prices.

Fifthly, the tendency for risk-costs to be shared between the constituents of production on a footing of equality or balance.

II. *Test of their Truth.*—A fair test of the four economic laws of wages is that, if true, then their converse must be equally true.

The Quantitative Law is the law governing the *direct* increase of productive results and direct decrease in labour costs, and the proofs of it are seen in the economic

results of modern discoveries in physics, chemistry and mechanics.

Its converse is that the increase of human labour in quantity in ratio with productive result lowers the quality of human labour.

The historic examples of this converse are afforded by chattel slavery and its economic degradations.

The Qualitative Law is the law of the *indirect* increase of labour rewards and decrease of labour costs.

The converse of it is that in proportion as human labour is lowered in quality by decrease in the ratio of skilled (brain) work to unskilled (muscle) work, rewards are decreased, and conversely cost to production result is increased.

The most conspicuous examples of this converse have appeared during periods of political anarchy.

A modern example on a large scale has been the economic consequences of the Bolshevist revolution in Russia.

In the belief that trained brain-work was unnecessary in industry and an element hostile to the aims of the revolutionaries, persons included in the higher levels of productive activity and skill were either massacred or banished. Taking the country as a whole, labour was lowered in quality; the ratio of unskilled to skilled labour rapidly rose; but costs of labour rose and output results fell to the same extent, and amid general penury the wage of labour became as miserable as its conditions.

With regard to the Distributive Law, improvement in production, with rare exceptions, takes place step by step and detail by detail. Equally the benefit of the improvement tends economically to be distributed step by step.

The converse of this law is that—

An increase in production costs tends to be shared in equal, or approximately equal, proportions between producers and consumers.

When additional burdens are laid on production by public charges, the effect of the Law is—and its truth is proved by experience—that these additions are, in part, forthwith reflected in prices. As much of the increase is passed on as can be without unduly deterring demand, and the balance is borne by producers either in the form of lower manual labour wages, lower staff pay, or lower or less certain returns on capital, or in all three forms.

As the mass of the population of every country are producers and form the mass of consumers at the same time, the result is the tendency of the incidence of such taxation to spread over the whole community.

The converse of the Competitive Law is that where rates of wages have brought about a stable equilibrium of risk-cost, the resultant stimulus to enterprise and employment will tend to raise wage rates until unstable equilibrium reappears.

This indicates a pendulum-like swing between settled and unsettled conditions, and that has been the modern

world's experience. Not holding the key of the enigma, the world has worried along with its manual labour wage troubles, usually settling them at the exaggerated cost of strikes or lock-outs.

If the Law were understood it would prevent demands on either side from being pushed to extremes.

III. *Theory includes All Services.*—Now, though men do not in general consciously appreciate the fact, and least of all enter upon an analysis, it is the fact none the less that the " market price " of services of every grade from highest to lowest is affected by these tendencies, and broadly determined by them.

The " market price," of course, is alone that on which a Theory of Wages can base itself, the individual exceptions being treated as exceptions, since the tendencies, though laws and true, are not cast-iron rules, nor is the " market price " a cast-iron figure.

It is clear, too, that to arrive at a true Theory the price of *all* services must be considered—not those of manual labour alone, to which, in ordinary usage, the term " wages " is applied—but the price also of the services of capital, and the price of the labour of ability.

Services, with the advancement of civilisation, not only become more various, new branches and subdivisions of service in production exchange and distribution being continually evolved, but they become, like commodities, more exactly and definitely distinguished in grade.

This is the process of selective specialisation.

It is only when the multitudinous detail involved in the exchange of services is viewed in large outline that its plan and its lines of influence—the abiding tendencies or Economic Laws—become apparent.

The economist, to arrive at conclusions justly claiming to be scientific because based on fact and not on mere speculation, has to take a survey of social phenomena at once comprehensive and complete.

So far we have dealt broadly with the causes which go to *determine* rates of wages. As bearing upon that determination the four main causes are not only constantly operative, but they apply to every part of the field of labour in every part of the world.

They are causes, too, which act simultaneously, and it is in their combined and inter-related influences that their consequences appear, the indicators being the price of services on the one hand and the price of commodities on the other.

IV. *Wage Fluctuations. Theory of the Causes.*—But determination of wage rates is only one aspect of the matter. Besides the broad movements—the groundswell of the wage values and prices-ocean—there are more rapid and temporary movements of rise and fall. The extremes of these movements form the maxima and minima, as those terms are usually understood.

The more rapid fluctuation springs from the preponderance on one side or the other, for the time being, of a variety of factors, some making for a rise in wage rates, others for a fall. Partly the factors on each side are economic, partly political. In order to afford a clear

idea of the Theory, a classified conspectus of the factors is here presented in tabular form :

Causes which raise Wages.	*Causes which depress Wages.*
I. Economic—Direct.	I. Economic—Direct.
(*a*) Fall in labour costs arising from increase in ratio of mechanical labour-power to manual labour.	(*a*) Rise in labour costs due to decrease in ratio of mechanical labour-power to manual labour.
(*b*) Fall in labour costs arising from increase in ratio of skilled to unskilled labour.	(*b*) Rise in labour costs due to decrease in ratio of skilled to unskilled labour.
(*c*) Saving on Time factor and increase of output.	(*c*) Loss on Time factor from rules restricting output.
(*d*) Increase in incentive.	(*d*) Decrease in incentive.
(*e*) Rise in physical efficiency.	(*e*) Fall in physical efficiency.
(*f*) Fall in risk-costs.	(*f*) Rise in risk-costs.
(*g*) Fall in the general rate on money and " wage " of capital.	(*g*) Rise in the general rate on money and " wage " on capital.
II. Economic—Indirect.	II. Economic—Indirect.
Fall in prices due to increase and development of production (rise in *real* wages).	Rise in prices due to decrease of production (fall in *real* wages).
III. Political—Direct.	III. Political—Direct.
Decrease of " on-costs " due to fall in national and local taxation.	(*a*) Increase in " on-costs " due to rise in national and local taxation.
	(*b*) Losses due to public disturbance or insecurity.
IV. Political—Indirect.	IV. Political—Indirect.
Fall in prices due to lowered taxation (rise in *real* wages).	(*a*) Rise in prices due to heightened taxation (fall in *real* wages).
	(*b*) Losses due to debasement of the currency (fall in *real* wages).

It will be noted that with two exceptions, both political, every cause tending to raise wages has its converse.

V. *Maxima and Minima.*—Let us now consider some of the inferences suggested by the tabulation. They are as follows :

(1) Wages reach their *maximum* where all the factors on the increase side act together, and rises immediately will be relative to the number of factors on that side working as against factors at work on the decrease side.

(2) Conversely wages will fall to their *minimum* where all the factors on the decrease side act together, and falls intermediately will be relative to the number of decreasive factors at work as against factors on the increase side.

But it is important to note, as proved by experience, that where the increasive factors are not at work, ruling out for the time being their corresponding decreasive factors, the decreasive factors *not so ruled out* usually remain operative. Conversely again, so far as decreasive factors do not rule out increasive, the latter usually remain operative.

Hence, in the world of fact, the state of things in which *all* the increasive factors are at work and *none* of the decreasive, is ideal rather than actual, and at all events exceptional. Fortunately, too, for mankind, the state of things in which *all* the decreasive factors, and they alone, are active is equally exceptional. It is only realised during violent revolutions, and is happily and necessarily transient, for the *absolute* minimum is starvation.

What we do find in the world of fact, at any time or in any place, is a preponderance of increasive over decreasive factors, or vice versa. It is the weight of the preponderance on one side or the other which makes up

total movement. A broad nation-wide wage movement, therefore, is never a simple result, but always the expression of a complex of causes.

Needless to add, the mutuality or swing from one side to the other does not apply to the exceptional political causes which appear at the bottom of the list on the decreasive side.

VI. *Examples : United States and Great Britain.*—The greatest example, which has yet appeared, of a decisive preponderance of the increasive over the decreasive factors is afforded by the United States, where, owing to that preponderance, not only nominal but *real* wages have been carried to a level 100 per cent. above the level in Great Britain, where, with the exception of the United States and the British Dominions, it had previously risen higher than in any other country.

This rise in the level of real wages, which is the true test, is, it is essential to note, not only not *an indication of an increase in labour* costs, *but is the proof of a fall in labour costs, and cannot take place unless there is a fall in labour costs, for the rise in* real *wages is actually the measure of the fall in costs.*

In Great Britain, on the other hand, since 1920, there has been a preponderance of the decreasive factors, though happily not so pronounced as the preponderance in the United States on the increasive side. While practically every increasive factor has in the United States been operative, all pulling the one way with a multiplied pull, a tabulation of the state of affairs in Great Britain gives these results :

WAGE POSITION IN GREAT BRITAIN, 1925 AND 1926.

Increasive Factors.

(*a*) Fall in labour costs arising from increase in ratio of mechanical labour-power to manual labour. (Note: partial only, and checked by the higher costs of re-equipment.)

(*b*) Fall in labour costs arising from increase in ratio of skilled to unskilled labour. (Note: limited and irregular in distribution and checked by the unemployment "dole.")

(*c*) Rise in physical efficiency.

Note.—Fall in prices due to appreciation of currency to gold value level has no effect on *real* wages if accompanied by a corresponding fall in nominal wage rates.

Decreasive Factors.

(*c*) Loss on Time factor from rules restricting output. (Note: this acts as a check on increasive factors (*a*) and (*b*).)

(*d*) Decrease in incentive. (Note: various in different industries, but preponderant on balance.)

(*e*) Rise in risk-costs. (Note: Greatly emphasised by industrial disputes.)

(*f*) Rise in the general rate on money and "wage" of capital.

(*g*) Rise in prices due to decrease of production (fall in *real* wages).

(*h*) Increase in on-costs due to rise in national and local taxation. (Note: this very heavy.)

(*i*) Rise in prices due to heightened taxation (fall in *real* wages). (Note: cost of living index figure 171 as against gold value index figure.)

In the more depressed industries the increasive factors (*a*) and (*b*) have not been operative. The effect on the coal-mining industry of the Seven Hours Day Act (now repealed) was to send up the ratio of unskilled to skilled labour, and aggravate costs per ton. The increase in

"on-costs" due to taxation includes the various levies imposed for health, pensions, and unemployment insurance, though to a certain extent that is counteracted by such effect as the levies have on the (*c*) increase in physical efficiency factor.

VII. *Manual Labour Attitude to Mechanical Labour-Power.*—It has been unfortunate for the modern world that, owing to the projection of feudal tradition into wage employment, manual operators have so far, and in general, been looked upon less as co-operators than as hirelings.

This has been unfortunate because, properly speaking, the feudal tradition, deriving from status, is foreign to contract, and to a state of society based on contract.

The essential feature of a society based on contract is freedom of opportunity; and that freedom of opportunity is bound to make for the obliteration of class distinction as the latter has been handed down from feudal times. The only distinctions really consistent with a society based on contract are distinctions arising from ability and the values and grades of services. But these are not, in the older sense of the word, distinctions of class. In the older sense of the word distinctions of class were hereditary. In the world at the present time there is, in this respect, a steady change; a change consonant with the evolution in the basis of society. Here, again, it is in the United States where this change, so far, has gone farthest.

As regards employers and employed, the spirit of the feudal tradition has been adverse to economic interest

on both sides, and, joined to the past depression of manual labour wage rates by the effort to debit manual labour with the whole burden of risk-cost, has fostered a most unfortunate ill-will. That ill-will has gone to render the mass manual labour attitude towards mechanical labour-power and the uplift of human labour unintelligent.

VIII. *The "Wage" of Capital Factor.*—Though all the factors given in the tabulation are, as causes, manifestly important, the factor of the "wage" of capital is of peculiar significance owing to a fall in the cost of capital operating to extend, and a rise in the cost of capital operating to narrow the opportunities of the labour of ability. This, though the effect may not always be immediate, inevitably reacts, favourably in the one instance and unfavourably in the other, on manual labour employment, and through that on manual labour wage rates.

It is because of these influences of the fall or rise in the cost of capital, that the modern system of banking and credit has come to play in production a part of decisive importance. That system, in gathering together the savings of the public—individually it may be trifling, but huge in the mass—and employing them in industry and trade is not only beneficial; it is vital. Primarily it works through the labour of ability, and, as an ally, is to the labour of ability indispensable, for it is by these means that the opportunities of the labour of ability have been, and are, most readily, surely, and at least cost, opened out, while it is through the

labour of ability that manual employment is created and established.

IX. "*Rank*" *of Manual Labour Wages.*—It may be said that the Theory here set out would make manual labour wages a junior charge on industry and not a prior charge. But in a fair apportionment none of the charges ought properly to be considered either first or last. They form a trinity of interests, in every enterprise as inseparable as the three sides of a triangle, and which of the three is named first, second, or third is a matter of nomenclature.

The one thing clear is that any claim to fix the wage of manual labour regardless of the return on capital, or of the pay of ability, is uneconomic. Whatever may be thought of it as an item of political stock-in-trade, as an economic principle it is pure impossibilism.

The claim is impossibilism because it ignores the truth that, in point of their economic values, individual human services range through an enormous gamut.

The services rendered to mankind by the great discoverers and inventors are beyond all computation. But if great and original ability in discovery is rare, rare too is the ability which can see the opening for, create, and carry enterprise to success where ordinary men see nothing. Sagacity in every degree has its price, and the price is not, and never can be, abolished by the shouting in the market-place.

Nevertheless, though the services of some exceptional men may in positive economic value outweigh the services of millions of ordinary men, by the working of the Law

of Diminishing Return the main substantial value of those services inures for the welfare of the millions. Leaderless, the mass would find itself not only inert and blind, but desperately impoverished. Leaders the mass must have, and if not good ones, then bad ones who, once exalted, lash it with whips of scorpions.

At its nether end the scale of service value sinks to labour so unskilled, unintelligent and unreliable that even on the lowest terms it is not worth its wage. Thinking of labour as a mere quantity on a dead level is neither science nor sense.

No Theory of Wages which fails to take this range in the value of services into account can claim to be true.

X. *Wages of Distribution.*—It may also be objected that the Theory of Wages here presented does not comprehend the wage questions of distribution.

In every community the distributors, though numerous, are a minority. The wage problems which disturb the modern world are the wage problems of production—problems of the mass. Let the wage problems of production be elucidated and understood, and those of distribution will offer no difficulty, for the wage problem of distribution, comparatively easy, is the sharing of risk-cost in fair proportion—that is, in balance.

XI. *The "Standard of Living" Question.*—There remains the claim that manual labour is entitled to a sufficient standard of living.

It is to the common interest of society that manual labour should have the best standard of living that the preponderance of increasive factors in earnings over

decreasive allows. But what amounts to a sufficient standard of living in any country at any time is a question of prevalent custom.

There has, in the modern world, been a rise in the common level of welfare beyond anything known in history. In quality and variety of food-stuff, in clothing, in housing, in opportunities of recreation and instruction, the most ordinary unskilled labourer to-day has advantages which 200 years ago even would have appeared impossible dreams.

But this has not satisfied desire. On the contrary, desire, growing with what it feeds upon, is less satisfied. The satisfaction limit is a moral question beyond economic bounds.

CHAPTER IX

TAXATION AND WAGES

I. *The Three Subjects of Wage Taxation.*—From the time of Adam Smith taxation, and the incidence and effects of taxation, have been considered an integral feature of Economics, and from the standpoint especially of yield, the "four rules" of the "father of Political Economy" are accepted as classic. Time and experience have affirmed their truth. On the special subject of taxation itself Paul Leroy-Beaulieu's *Traité de la Science des Finances* embodies, so far, one of the most complete expositions of principles. The author, for many years permanent Secretary of the Treasury in France, gives, on the basis of historical data, and for purposes of illustration, a comparison of the fiscal systems and practices of France, Great Britain and Germany.

But taxation with special reference to its incidence and effects on wages, is a line of inquiry which has not yet been followed out. An outline of the inquiry may, therefore, here be presented.

It will be evident from the foregoing pages that the three subjects of taxation from this point of view are mechanical labour-power, the labour of ability, and

manual labour. How and in what manner does taxation respectively affect them?

II. *Mechanical Labour-power as a Source of Public Revenue.*—Of the three, mechanical labour-power is by no means the least important. Indeed, owing to the development of mechanical labour-power, the immense total of capital sunk in its creation and equipment, and the productive results, now in total hardly measurable, which have been, and are, derived from it, that form of labour-power may be considered, directly and indirectly, the most important of the three as a contributor to public revenue. Especially is that the case in countries which have become, as the phrase goes, "highly industrialised," like the United States, Great Britain, Germany and in a less, though increasing degree, France, Italy, Spain, and the smaller States of Central Europe.

It is this importance of mechanical labour-power as a source of public revenue which accounts for the spread and increase of "direct" taxation—the imposts levied upon incomes and inheritances. Not by any means is it without significance that the device of income-tax originated in Great Britain, and very nearly coincidently with the inception of the new Mechanical Labour-power Age. Nor is it without significance that, with the conspicuous exception until recent years of the United States, "direct" taxation was adopted by other countries, notably by other countries in Europe, after the development of mechanical labour-power in them had, in one degree or another, taken place.

It has never been conceded that the development of mechanical labour-power was the inducement which led governments to turn attention to this means of replenishing their coffers. What they were aware of was that a mass of new individual incomes had sprung into existence, and what they desired, seeing the "success" *of direct taxation in Great Britain, was to* bring these incomes in the same manner under contribution. None the less the development of mechanical labour-power formed the true inducement.

That "direct" taxation, more particularly in a "highly industrialised" country, is distinctly an impost on mechanical labour is a truth not disputable when, as the facts prove, it is always in those countries where "direct" taxation affords its highest yield.

III. *Effect of "Direct" Taxation upon it.*—Now what are the effects of this class of impost? The first effect is always, and obviously, to lessen the sum of capital available for the creation and equipment of mechanical labour-power; that is, to slow down the pace of development. The extent to which the pace of development may, from this cause, be slowed down, depends, of course, on the amount and severity of the tax, but it may be observed that *the extent to which the pace tends to be slowed down is not on a parallel with the severity of the tax.* Thus, if a tax of 5 per cent. has a slowing-down effect which may be figured as —5, a tax of 10 per cent. will have a like effect more approximately figured as —12·5. There is, in fact, with every increase in the tax, a rising ratio of arrest, which represents a geometrical

progression; and the comparison broadly may be stated thus:

Rate of tax % . .	5	10	15	20	25	30	35
Ratio of arrest % .	5	12·5	22·5	37·5	57·5	80·0	105
Increase in ratio of arrest % . .	—	7·5	10	15	20	22·5	25

At just under 35 per cent. an impost on mechanical labour-power reaches, on this calculation, the level where, *taken as a whole*, development will be altogether checked. There would be exceptions, for an influence of this kind does not work rigidly, but, *as a whole*, the further development of mechanical labour-power would then cease, and with the tax scaled up above the full arrest point, mechanical labour-power, owing to the difficulty under such circumstances of working and maintaining it without loss, will tend to decline.

IV. *Rate on Money and Ratio of Arrest.*—The reason for the increase in the ratio of arrest is found in the effect of severe "direct" taxation on the general rate on money. That point has already been touched upon, but it may here be looked at somewhat more in detail.

Every increase in the severity of "direct" taxation accentuates disinclination to accept the risk-costs of industrial investment and adventure. Under the pressure of such taxation, when severe enough, not only is the capital available for industrial investment and adventure decreased in total, but persons having capital to invest, before venturing it look around for the chance

of the most assured return up to at least the general rate on money. Under severe "direct" taxation those chances are fewer, for risk-cost is then high, and the expense of maintaining and renewing mechanical labour-power is also high. In face of the diminution of chances, combined with higher risks and costs, fewer enterprises can be set on foot. These adverse influences are progressively sharpened with every successive turn of the taxation screw.

But, with the arrest in the development of mechanical labour-power, there must be a correspondent falling off in the openings which that development affords alike to non-manual and to manual labour. The rates of remuneration of both categories will therefore, under such conditions, tend to fall, for employment is then in the state known as "depressed."

It is through this depression of employment and the effect of unemployment, or more casual employment, on the actual *average* of earnings, as well as on *rates* of earnings, that the burden of "direct" taxation spreads itself over the whole community. The burden is never confined, as often supposed, to the actual payers of the tax or taxes. Hence, in truth, "direct" taxation is, in its final incidence, largely indirect.

V. "*Graduated*" *Taxes*.—On the assumption that incidence is, and may be, confined to the actual payers, direct taxation has been "graduated." But the economic effects of a "graduated" tax are not, as experience goes to prove, sensibly different. It is by

the *total* of the tax that its economic effects have to be measured. A " graduated " tax is easier to collect than a severe dead-level tax, because the area of possible evasion is then lessened. From the fiscal standpoint, therefore, the greater facility of collection is the motive for the adoption of the " graduation " device, even though the proclaimed purpose may be adjustment of the tax to " ability to pay."

VI. *Net Pace of Labour-power Development.*—All capital invested in mechanical labour-power may properly be classed as active capital, since it is wealth employed in the creation of more wealth, and it is through that increase of its active capital total that a country advances most rapidly in riches, because mechanical labour-power cannot be employed in any instance without the necessary concurrent employment being afforded alike to the labour of ability and to manual labour. Every development, therefore, of mechanical labour-power adds in a threefold manner to the sum of the national earnings; and it is evident that such development, where it sets in, will go on at a steady pace where not obstructed. If we take the development by periods, say, of fifteen years, then the advance in the second period will be approximately double that in the first period, and that of the third period double again the advance in the second; that is, on the footing of a nearly 5 per cent. per annum advance. And this has been the record and experience alike in the United States, in Great Britain and in Germany. On that basis the development of mechanical labour-power in

105 years will be represented at fifteeen-year intervals by the progression 1, 2, 4, 8, 16, 32, 64, 128. This throws light on the mighty growth of productive resources which has taken place since the year 1800; a growth with which, as already said, consumption and demand have of necessity, and through the resultant economic stimulus, kept step.

But as against this progression of growth there has to be set the progression of arrest arising from imposts on mechanical labour-power. The net result, therefore, is the balance of progression over arrest.

It appears, and is now sometimes politically judged to be, almost fatally easy to add to the rate and pressure of "direct" taxation, but it is needful to bear in mind that where the ratio of arrest passes the rate of progression, the immediate result must be decline.

VII. *Illustration of Arrest Effect.*—Taking the rate of progression, on extended experience, to be 5 per cent. per annum, each year witnessing a 1/20th addition to the preceding year's total, if fresh direct taxation be imposed which involves a 15 per cent. rise in the ratio of arrest—which would be the effect of a 10 per cent. in the dollar tax increase—then there will be a net decline of 10 per cent. in the total of new mechanical labour-power which would otherwise have been brought into existence.

For example, suppose a country, say Great Britain, to have invested in mechanical labour-power a total of £4,000,000,000. On the calculated average rate of unchecked annual increase the addition to this total

for the following year would be £200,000,000. Next suppose the ratio of arrest under a direct tax of 15 per cent. (or 3*s.*) in the £ to be 22·5 per cent. of the £200,000,000. The "arrest effect" represents a deduction of £45,000,000, leaving a balance of £155,000,000. The rate of tax is now, let us say, put up to 4*s.* in the £. The "arrest effect" then, on the calculation, goes up to 37·5 per cent., and the deduction rises to that proportion of £207,750,000, or £77,766,250—just about 77¾ millions. But £207,750,000 less £77,750,000, leaves a balance of £130,000,000, as against £151,000,000. That is, £21,000,000 lost on balance, and just about 10 per cent. on £207,750,000.

VIII. *The "Total Arrest" Point.*—The tendency to progression will continue, but it will be overshadowed by the effect of the tax, and it will continue overshadowed until the tendency to progression gradually works down the arresting result of the tax increase. On the calculation a tax of 33·75 *c.* in the $, or 6*s.* 9*d.* in the £, represents the total arrest point. There will then be no "working down."

But to these primary effects of a national tax of this *character have to be added the secondary effects due to* rise in the rate on money, and the influence, already dealt with, of that rise on the charges for maintenance and renewals.

Furthermore, besides these effects of the national tax, those, similar in their consequences, of local taxes or rates levied on industrial plant and machinery have to be taken into account.

Were a national tax, plus local taxes, to be imposed on mechanical labour-power now for the first time, the arrestive effects here touched upon would be too clear for dispute. But mechanical labour-power, as it were, has grown up under these conditions, and the effects tend to be obscured by use and wont.

The consequences of a tax can, of course, only be ascertained from observation over a fair period of time, and that observation is, for the contemporary inquirer, the more difficult, partly because of lack of exactitude in the data (the precise amount of capital laid out on new mechanical labour-power in any year), and partly because the consequences of the tax are always found associated with, and complicated by, others arising from other causes.

But the calculation given, while of necessity no more than a broad and approximate induction, appears to be within the facts rather than beyond them.

IX. *Historical Instances.*—In Great Britain in the year 1921, in addition to an income tax of 6*s*. in the £, an excess profits duty of 60 per cent.—also an impost on mechanical labour-power—was exacted. Between them *these imposts, going far beyond the total arrest limit*, broke down and reversed progression, emphasised the "slump" in prices by wholesale and forced realisation of stocks-in-trade, and brought about unemployment on a disastrous scale.

Turning to historical instances, it is now quite clear that the ruin of the Roman Empire, *first economically* and then politically, was hastened by excessive taxation,

most of it "direct." But this could not have been as evident to contemporaries. The main forms of this taxation were the direct annual imposts levied upon municipal corporations (for which in the end the leading burgesses were made personally responsible); the annual taxes levied upon landed estates (which led to "tied" serfdom), and the taxes on inheritances (in the end "graduated" on an increasing scale).

It is now one of the recognised mischiefs of "graduated" income-tax that it falls with peculiar severity on the capital most readily available for the initiation of enterprise; on capital, to borrow the phrase of Mr. Otto Kahn, "in its most dynamic form." The initiation of new openings for employment must, of course, be in an equal degree narrowed. Through its restraint of expansion in employment, the tax, therefore, in its final effect, operates to depress wage rates.

X. *Incidence on Basic Industries.*—Another objection to "direct" taxation, when severe, is that it falls on basic industries with the heaviest incidence. In the basic industries of agriculture and mining the proportion of human labour employed to mechanical labour is higher than in urban and manufacturing industry. The labour costs of such industries in consequence are higher, and that is particularly the case in coal-mining, where the ratio of unskilled to skilled manual labour runs as high as 50 per cent. To the prosperity of these basic industries, and imperatively so in coal-mining, development of mechanical labour-power, and a low cost for equipment, installation, maintenance and depreciation,

is under present-day conditions vital. Heavy imposts on mechanical labour-power, forcing up its cost, when they are added to high human labour-power cost, become in these industries a burden out of proportion to their more limited ability to realise labour-cost economics. And this disproportionate incidence grows more disproportionate with every addition to the taxation imposed. The particular depression of these basic industries in Great Britain during recent years has arisen largely from this cause.

XI. *Inheritance Taxes.*—Again, in their economic effects modern inheritance taxes, so far as they operate as an impost on mechanical labour-power—which they always do where that power is important, and where its importance makes inheritance taxes worth while—are not different in their consequences from income-tax, "graduated" or otherwise.

A peculiar form of mischief attaching to this class of taxation, a mischief which increases with the severity of the tax, is the forced sales of property and interests it involves, and the costs of such forced sales. Because of that mischief, the indirect, but actual, cost to the public of the collection of inheritance taxes is higher in proportion to their revenue yield than that of any other kind of tax.

The wounds which may be inflicted on a country by clumsily applied or ill-considered fiscal expedients may be worse even than those of war.

XII. *Labour of Ability and Wage Taxes.*—It remains to consider somewhat more definitely how taxation of

mechanical labour-power affects the labour of ability and manual labour rewards.

Under this system the labour of ability is called upon to bear a double burden. In the first place, its incomes are included in the tax, which is commonly fixed to include them, and it pays its share, less such reliefs as may be conceded to smaller incomes. But these concessions may be more than offset by the super-tax levied on the incomes of its higher grades, so that, as a whole, the labour of ability from top to bottom pays its full share, and sometimes more.

But, in the second place, the labour of ability also pays in the effect which lessened opportunities have on the rate and buoyancy of its earnings. Where "direct" taxation is severe it pays that taxation on incomes which tend to become, and to remain, a minimum.

XIII. *Manual Labour's Contribution.*—Manual labour under the same conditions is a threefold contributor. First the effect of heavy imposts on mechanical labour-power reacts on manual labour earnings partly by tending to depress wage rates, or preventing them from rising when they would otherwise rise, and partly through shrinkage in employment, and less regularity of employment, lowering the average of earnings.

And these losses of manual labour, though in any one individual instance they may seem small, are in the mass enormous.

Secondly, manual labour contributes through the rise in the rate on money. Economically, as already said, maintenance and renewal of the mechanical labour-

power is in every modern productive enterprise the real first charge; for no other charge can be put in front of it and displace it without destroying the enterprise.

Now it is quite possible through heavy direct taxation to penalise capital already invested in mechanical labour-power, but as the effect is to force up the rate on money, the further effect is to force up the cost of the money needed to keep the mechanical labour-power on foot. If mechanical labour-power, once created, had an indefinite "life" these results would not appear. Mechanical labour-power, however, has only a limited "life," and there is no choice save between renewal and disappearance. For this imperative renewal capital demands the current terms; nor is there any known device which enables renewal capital to be had under its price concurrently with heavy taxation. As the price has to be paid, and as under these circumstances the labour of ability is fully squeezed in tax and in earnings, manual labour has to bear its share. Further, manual labour bears its share through the efforts under these conditions to "worry along" with mechanical labour-power after it has passed its proper limit of "life" and has become out-of-date and inefficient. Manual labour earnings then *must* be lower.

Thirdly, manual labour pays through the higher cost of living. As far as possible under the same conditions the cost burden inflated by taxation is "passed on." The Distributive Law of Wages does not work with the freedom and equipoise it exhibits when not impinged upon. The producer, hard pressed, rather than sell at

a loss will not sell at all; and prefers, if he cannot get a price that covers costs, to let business go. Thus the burden is to a sensible extent "passed on," and appears in a rise in prices which cuts *real* wages down. And this again in the aggregate is a huge manual labour contribution.

XIV. *The Political Impetus.*—It is necessary to present this summary of the inevitable spread in the incidence of imposts on mechanical labour-power, because under the double influence of mass hostility to that power, and of desire to confer "free" State benefits, there has appeared a political impetus to screw up "direct" taxation on the pretext, or in the belief, that so doing assists to equalise the social distribution of wealth.

Even a superficial consideration of the spread of incidence reveals why all such attempts must be futile.

Mass hostility to mechanical labour-power in Europe dies hard, for inherited tradition, prejudice and custom here thrust through, and the great majority of the population have, as yet, too slight a knowledge of Economics to perceive the truth.

In laying imposts, therefore, on mechanical labour-power, governments have followed what has seemed the line of least resistance.

Unfortunately this has helped to lend colour to the assertion that mechanical labour-power and its ownership is the cause of poverty, and to disguise the fact that it is mechanical labour-power which has lifted the mass of the population to their present level of welfare, and stands between them and misery.

XV. *The Doctrines of Karl Marx.*—Karl Marx, *alias* Mordicai, a disciple of Louis Blanc, the French apostle of bureaucratic socialism, perceiving the importance of mechanical labour-power, but looking upon it as a tyranny, preached that the people must seize and own it, but to do so must suppress and supersede the labour of ability. Like others who accept his doctrine, he confused the labour of ability with "capitalism," and he failed to see the translation of unskilled manual labour into skilled. His doctrines have been applied in Russia, and they have failed because the effort to apply them is as much lacking in sagacity as the attempt to make a tripod stand up on two legs. The "twopod" cannot stand up.

In contrast with that attempt, the inception of an intelligent mass attitude towards mechanical labour-power in the United States has brought about an advance in prosperity bordering on the phenomenal.

Nor is that consequence in the least surprising when, bearing in mind the supreme economic value of mechanical labour-power, as well as its mass, an intelligent public attitude regarding it, by adding even a fractional percentage to its efficient operation, has the effect, through the working of the Laws of Wages, of raising labour rewards to a level never before known, and without raising perceptibly the general level of prices.

But when, on the other hand, and in contrast with that result, the development of mechanical labour-power is arrested, or worse, by penalising taxation; when it is

beset by mass ignorance and hostility, and of set purpose reduced in efficiency in the absurd belief that such reduction creates employment; when it is made the constant butt of political agitation; when investment in industry is scared off, and initiative choked down; when every form of social ill is laid by ignorance at this door, there can be as little surprise that development gives place to signs of decline, and that employment languishes, and wages fall.

XVI. *Indirect Taxation: Effects on Wages.*—We have now briefly to consider the effects on wages of *indirect* taxation.

An indirect tax imposed for revenue purposes on a necessary commodity, for example, sugar, has the effect by raising the price of the commodity of reducing *real* wages.

An indirect tax imposed for revenue purposes on a "luxury," for example, motor-cars, has the effect of restricting the use or consumption of the "luxury," and tends to prevent demand for it from spreading downwards among the population. Except in so far as, by that restriction of demand, the tax curtails employment in the industry dependent on the demand, there is no effect on rates of wages, though there is a restriction on possible earning power.

It is in the public interest that so-called "luxuries" of to-day should become the necessaries of to-morrow, for the term "luxury" has no meaning except relatively and comparatively. This translation of "luxuries"

into necessaries forms one of the main expansions of employment, and has a favourable effect on wage rates by spreading the variety of industry, and, through variation, spreading and balancing industrial risks.

Indirect taxes imposed for "protective" purposes and not for revenue are a roundabout subsidy towards wages in the trades "protected." The public pay the subsidy in the difference, whatever it may be, between the "protected" and the openly competitive or non-protected price. It is perfectly true that by internal competition the protected price may fall to the level of the non-protected price, and in that event the subsidy disappears, and it is also true that assurance of the Home market reduces producers' "on-costs." But this only occurs where, but for the protective tax, there would be a formidable and price-cutting competition with imported goods of the same kind and quality.

The economic effect of a protective tax, where it actually operates as a subsidy, is to raise rates of wages in protected trades at the expense of *real* wages in the unprotected trades. If the protected trades be few and not important, the effect on *real* wages in the unprotected will be slight, and almost insensible; but if the protected trades be numerous and important, the effect on *real* wages in the unprotected trades will be marked, until at all events the subsidy effect disappears.

Should there be protection "all round," then nominal wages will be raised all round, but *real* wages will not.

In such circumstances *real* wages can only be raised by general increase in production and fall in its costs.

XVII. *When Taxes Economic and not.*—Taxation, whether direct or indirect, does not involve economic loss if the common security services of government are commensurate with the revenues raised. But if the revenues raised are out of proportion to the common security services rendered, and revenues are squandered on the palliation or encouragement of social inefficiency, they are economic waste, and, if imposed for other reasons and from other motives than the common security and the common public good, become the causes of common impoverishment.

To the cost of all so-called "free" State benefits manual labour makes, in the final incidence on wages and prices, the heaviest contribution. No tax has yet been devised which can be limited in its final incidence entirely to the actual direct payers of the tax.

In final incidence every tax tends to fasten itself upon the most efficient source of revenue. As by far the most efficient source, because the great common base of modern incomes and wages, mechanical labour-power has to carry the main burden of taxation. Tending to decrease the net rate of the progressive expansion of mechanical labour-power, the burden inevitably, through its influence on employment, reacts on the rates of all salaries and wages. This indicates the supreme importance of care in the expenditure of public money. The purpose here is not to hold up one form of taxation

as better than another. That depends upon circumstances. The purpose is to point out the effect of the taxation of mechanical labour-power on wages. A fiscal system hazy and uncertain as to the real incidence of taxation cannot be sound.

CHAPTER X

FUTURE OF THE WAGE SYSTEM

I. *Pace of Change increasing.*—On a dispassionate consideration of the economic Laws governing wages it is evident that the modern Wage System has by no means reached final form. Indeed, the system, as now understood, may be described as a transition. The feudal relationship of superior and serf, shading by natural usage into that of "Master and Man," has shaded again into that of employer and employee. There is more in this than a mere change of terms. The change of terms reflects a change in ideas. So far is it, indeed, from being the fact that the Wage System has reached final form, that the truth, on the contrary, is increase in the pace of change. The pace now is more rapid than hitherto known.

II. *Causes of Change.* (a) *Limited Liability Investment.*—The true starting-point of this change was recognition of the principle of limited liability, and of the three concurrent movements making for evolution that has to be put first because one result of it has been the spread of mass industrial investment.

Bondholders and shareholders who, fifty years ago, were numbered by tens of thousands are now numbered

by millions. Steadily and surely, and also at an accelerated pace, ownership of mechanical labour-power has been passing from the relatively few to the many. In *that ownership is now included not only the labour of* ability, but manual labour to an increasing extent. There are examples of industries in which largely from the beginning manual labour has created and owned the mechanical labour-power and equipment. The most important of these examples is offered by the cotton spinning industry of Lancashire, England. The level of skill demanded in modern cotton spinning is high and relations with the labour of ability have, in this instance, always remained close.

Such examples, however, have hitherto been exceptional. Gradually, nevertheless, under the encouragement of limited liability, investments on the part of manual labour in the ownership of mechanical labour-power have extended. Some of these investments have recently in the United States been made out of trade union funds and the resources of Labour Banks.

There can be no doubt at all that if the practice of industrial investment on the part of manual labour were general, manual labour might, within no very prolonged lapse of time, own, if not the whole, at all events a large, and possibly enough a preponderating, share of the mechanical labour-force.

At any rate the movement in that direction has set in and has been gathering momentum.

But for this movement to have its full economic effect, it is essential that the attitude of manual labour towards

the labour of ability should not be hostile. Hostility in that respect would mean economic loss and disappointment.

With a gradual evolution there is the prospect of manual labour investors being, as bondholders and stockholders, educated unto due appreciation of the labour of ability and its business value.

This evolution is none the less important because, like most purely economic movements, it appears to the mass of men insensible.

III. (b) *Trusts.*—In association with mass investment, the eventual consequences of which it is not easy to over-estimate, is the phase of industrial evolution which finds expression in the growth of combines or "trusts."

This second movement is economic because the impelling motive is desire to reduce risk-cost. The combine has a controlling influence on variations where smaller individual enterprises would be compelled passively to accept them. It may be described as "collective trading," and both as the sequel of limited liability, and as a safeguard against undue risk-cost, has the same *raison d'être* as "collective bargaining" in defence of manual labour wages.

A "trust" or combine may be "horizontal" or "perpendicular."

It is "horizontal" when it links up a number of similar enterprises—for example, a group of coal-mines.

It is "perpendicular" when, in addition to, say, coal-

mines, it includes coking, distilling and smelting plants; steel works; engineering businesses, and a selling organisation.

For business success and stability the raw material supply base of such an industrial and commercial structure has to be broad.

In the reduction of risk-cost alone a well-controlled combine quite justifies itself. Its very variety of resources enables it to balance and distribute its risks, and it opens up wider opportunities for the labour of ability than enterprises more limited in scope. It is able to employ the labour of ability at greater economic advantage.

The "perpendicular" trust is the complete trust, because, on experience, efficient and large-scale production cannot safely remain dependent on inefficient and small-scale distribution. The economic tendency is always, as already pointed out, for development in one part of a chain of services to extend all along the chain.

That tendency, set up by the desire to reduce risk-cost, is quite enough to account for the evolution of combines.

For this reason the "perpendicular" trust is the form of the future. There are increasing signs, besides, that trusts of this character will become more international, alike in their operations and their ownership.

IV. *Labour a Unity of Co-operation.*—Here it may be observed, and the point is very important in considering the future of the Wage System, that the term

"labour of ability" does *not* imply that manual labour is, in contradistinction, "the labour of inability." Many —it may even be said most—of the fully skilled manual employments call for greater ability than the lower levels of non-manual labour. In regard indeed to the degree of ability they demand, non-manual and manual labour have, where they pass one into the other, a very considerable overlap. The term "labour of ability" has been used in this treatise in distinction to manual labour merely for the sake of clearness. It is not intended to be understood that there is any gulf between them not easy to bridge. As a fact there is not, for the one kind of labour is not only the complement of the other, but the rapid increase in the ratio of skilled to unskilled manual labour has made them more than ever closely and variously allied.

That there is no gulf between them is evident by bearing in mind, for example, that the labour of the farmer is both manual and non-manual, yet calls, to achieve success, for a high degree alike of manual skill and, in its non-manual business aspects, for a high degree of ability and judgment.

The truth that all labour is of necessity a unity of co-operation, though scaling through grades of non-manual work at one end and through grades of manual work at the other, with, as said, a large mid-scale overlap so far as pure ability is concerned, is a truth which goes to set the future of the Wage System in its proper light, and helps to explain the movements which are now making for its evolution.

Nor because these movements are economic ought they to be looked down upon as promising less than what are held up as "social" influences. Economic movements *are* social influences, even though, like deep waters, they move with a silent flow.

V. *Economic Motive Power.*—Every economic tendency reflects and appeals to the simple but powerful, steady, and universal motive of realised advantage.

Self-styled altruists may preach the motive down. They are on a wrong track. Neither economic advantage nor honest gain of any kind can be realised save through labour and service, which, however self-regarding its motive, *must* serve and co-operate. Were this motive non-existent, production and industry, and the elaborate and delicate co-operation and interchange of services which have created civilisation, would perish. Man could never have risen above the condition of the Stone Age.

The reference here is not to exaggerated and perverted individual instances of egoism and crass greed, but to the broad, sane working of a natural impulse, inseparably bound up with, and rooted in, natural human affections.

Just as "individualism" is a term without meaning if used without reference to the social relationships it implies, so "altruism" has no meaning except as co-related with apparently self-regarding impulses.

The mistake of many would-be reformers is that they altogether overlook these implications, and in doing so lose sight of human nature.

VI. (c) *Co-partnership.*—The third economic movement relating to the Wage System arises out of the working of the Competitive Law.

Results of productive enterprises over given equal periods of time—say successive years—being variables—and the degree of variation may range from the almost negligible to the highly speculative—it follows that, given a fair sharing of risk-cost, the wage of manual labour should, like its productive output, be a variable in terms of money.

But such a variation has been found in practice inconvenient. Wage reductions lead to resistance and friction. The belief that manual labour should take none of the risks makes every proposed reduction a grievance.

For reasons based on his domestic economy, which is adjusted to his dependence on his labour, the workman values a steady and known wage.

In these circumstances risk-cost has to be averaged out.

There is, however, a means of providing for variation even where that is not done by "piece rates" and payment by results according to agreed schedule.

This means is found in the institution of what are called co-partnership schemes.

It is not necessary here to go into details of or comparisons between schemes which have been set on foot. All that is necessary is to look at the practice as a movement.

The practice has grown up owing to its presumably,

and in many instances its proved, favourable influence on incentive. But, as yet, it is comparatively inceptive, and its real present interest, as a movement, lies in its recognition of the co-operative relationship between manual labour and the other elements of the productive combination. In turn that recognition reflects decay of the feudal tradition in employment relationships.

VII. *Lines of Development.*—Co-partnership as now understood may, nevertheless, be described as, so far, inceptive because, so far, it has remained one-sided. To the extent that it contemplates bonus payments only, such payments—limiting the consideration to those which are on a business basis as against the professedly philanthropic—imply that the averaged level of manual labour wages must be below results. That is the objection advanced against it by many labour men. The present, however, is not of necessity the final form of the practice. It is not only probable but certain that, in a more advanced stage, the variation in productive results will be expressed by debits against the bonus fund as well as by credits to it.

An arrangement of that kind would enable the manual labour wage to represent a mean of the profit and loss experience.

If the wage level proved above results, debit against the bonus fund would make the downward adjustment; if below results, credit to the bonus fund would embody upward adjustment.

The influence on incentive of a bonus scheme of that more complete kind would be stronger than that of a

bonus scheme supposed to be semi-benevolent. It would appeal to the motive of avoiding losses as well as to that of making gains. The manual operator does not want benevolence. He prefers plain business. The complete bonus practice would ensure him "a square deal."

But manual workers would need to be put into a position to appreciate the business reasons. All this would go to reduce friction to a minimum, and by cutting down risk-cost would promote settled conditions and dry up wage disputes.

VIII. *The Ultimate Phase.*—As an intermediate stage co-partnership is interesting as well as important, but it has to be recognised that in the evolution of the Wage System co-partnership, as now understood, represents only an intermediate stage, for the more co-partnership extends and develops the more nearly will the Wage System shade into the ultimate phase of co-ownership.

Evolution of the Wage System, it is well not to forget, while it may greatly be assisted by the intelligent attitude of employers towards evolution, cannot be accomplished simply by and through the attitude of employers. That attitude has to be supported by the impulse from manual operators themselves, and by the impulse rising in intelligence and in grasp of the essential principles of industry, as well as by growth of interest on the part of manual operators as investors in industry.

The economic future of the Wage System points to manual labour and the labour of ability owning mechan-

ical labour-power between them, understanding the competitive Law of Wages, and working out a practice of adjustment which will function with hardly more friction than the present-day system of exchange.

IX. *The Difficulties:* (a) *Mobility of Labour.*—Obviously, and from the standpoint of ideas as they are now, there are real difficulties besetting such an evolution. The difficulties, however, lie chiefly in present ideas, and not only does evolution imply change of ideas, but that change will itself be, just as it will bring about, the transformation.

In degree as it is realised, the transformation will have an effect on earnings more and more marked were they compared with what they are now, but the effect will itself only appear a step-by-step rise.

One of the difficulties in the way concerns the mobility of labour. Economically it would not be desirable to limit chances and opportunities, and to set up obstacles to free transfer from employment to employment. It is no more desirable that a man should be "tied to the job" than it was for him to be "tied to the land." Hence there can be little doubt the development of co-ownership will be accompanied by development of a system of transfer of ownership interest, and that the two developments will dove-tail one into the other. Looked at from that aspect, gradual development is a surer and better thing than any ready-made scheme of change. The Wage System development which cut off mobility of labour would be lopsided. While a forward step in one direction, it would be a backward step in

another, and it is not the kind of evolution which will come about, because it would not work. The "turn-over" of labour may be lessened, so far as that arises from the vicissitudes of industry, but not the "turn-over" arising from individual enterprise.

X. (b) *The Social Residuum.*—The greater present impediment, however, to advance lies in the existence at the base of the social structure of a mass of unskilled and casualised labour, which, even at minimum wage-cost, is of low economic value.

Into that residuum every form of inefficiency and deficiency tends to sink.

The low level and the economic limitation in value of the unskilled and casualised labourer's services is also, in the social residuum, aggravated by the habits of unthrift engendered by inherited poverty. It is in this low level of social life where the proportion of physical unfitness and mental inferiority are highest. The residuum receives all that element which a healthy and vigorous society tends to slough off.

Economic absorption from the residuum into a co-proprietary Wage System must in any event be a gradual process, though it has to be observed that a co-proprietary Wage System, as it evolves, will tend to speed up the absorption. To the strong stimulus of example will be added emphasis of the difference between unskilled labour, more or less casually employed, and skilled or semi-skilled labour assured, through co-proprietary interest, of regular employment.

Another aid appears in the common opportunity of

education, for it is not least from this aspect that that common opportunity has economic value.

Insistently, under the combined influences of opportunity and hope, the more mentally and physically fit, though born in the residuum, will rise above it.

XI. *The "Proletariat."*—Already, however, it is a mistake to assume that the majority in all modern countries are a "proletariat"—the possessors of nothing.

In the United States the possessing class, reckoning under that head the mass of the agricultural population, the mass of bondholders and shareholders, and nearly the whole mass of the labour of ability, forms the great majority, and the unskilled labour residuum is not a political menace.

In France also the possessing class, including nearly all the peasantry, and the holders of stock in the public funds, who are persons of all grades of fortune, forms a majority.

In Great Britain the possessing class, numerous and powerful, includes a considerable and rising proportion of manual operatives. The aggregate of mass investment, directly in shares, bonds, savings certificates and house property, and indirectly through insurance, co-operative, and other societies, may be reliably computed at little short of £2,800,000,000, or $14,000,000,000. But in Great Britain, owing to the heavy preponderance of the urban population, non-possessing manual labour still forms a majority, though a diminishing majority.

In Germany the possessing class is also a minority,

and it was greatly diminished by the unlimited post-war currency inflation, which, for the time, ruined the middle class. Nevertheless, the "haves" form a very numerous minority, since they include some 700,000 small farmer freeholders, and in Germany the ratio of skilled to unskilled manual labour is rather higher than in Great Britain.

In Great Britain the total of unskilled labour employed in transport and in mining is exceptionally large. Skilled Labour Unions, too, have maintained impediments against free entry into their trades, their belief being that that is necessary to maintain wage rates. As already shown, it is a fallacious belief, since obstruction to the translation of unskilled into skilled labour, so far from keeping up wage rates, is one of the strongest causes of depression. Thirdly, there has to be reckoned the influence of the Poor Law. No such system can be established and long continued—and in Great Britain it has been in operation for over 350 years—without enfeebling self-help and foresight, and to that extent weakening the character of the unskilled and casualised labour which receives nineteen-twentieths of the Poor Law relief.

Under an Act of Parliament passed early in the eighteenth century, Justices of the Peace at Quarter Sessions were given the authority to fix the legal limit of rural labourers' wages, and usually wages, under this statute, were fixed at a weekly figure, in some cases 7*s.* ($1·68), which made resort to Poor Law relief imperative. The system of relief from rates was thus riveted round

the neck of the great mass of the labouring population, for wage rates in the towns were influenced by rural wages.

By this means there was created a *damnosa hereditas* which not only lowered the quality and efficiency of labour, and encouraged its wasteful employment, but remains, from its consequences, an obstacle to economic progress notwithstanding the mitigation of its consequences brought about by the discovery of mechanical labour-power, and the lead taken by Great Britain in applying that discovery.

Under universal franchise and the principle of "one vote one value," the political power of unskilled labour has been raised until it is out of all relation with that labour's economic condition and services, comparing services with numbers.

That state of things offers a favourable soil for political attacks on the modern form of society.

XII. *Evolution not Uncertain.*—The truth about the Wage System and the economic basis on which it rests needs to become a popularly apprehended truth before evolution of the Wage System into a better form can be pursued with a clear idea of the goal towards which evolution leads.

Reduction of the unskilled labour mass to a minimum; translation of unskilled into skilled labour; translation of the labourer from "proletarian" into co-proprietor and acknowledged co-operator, is the real and lasting solution of the Wage Problem.

It may be supposed that the evolution of the Wage

System here forecasted is, if not impossible, improbable. It is not. The change will gather momentum as it proceeds. The country in which the change is most obstructed will be the country left behind in the forward movement of commerce and industry.

CHAPTER XI

THE "INDUSTRIAL REVOLUTION"

I. *State Capitalism.*—The alternative, widely advocated, to the economic evolution of the Wage System is public ownership of the means of production, distribution and exchange—the so-called "Industrial Revolution."

The true industrial revolution of the modern world has been outlined, and it is a far more gigantic thing than could have been accomplished by all the political agitators legislating at their hardest. Not the most far-seeing of them could have imagined the change.

The meaning of the formula about public ownership is, in substance, public ownership of mechanical labour-power and its equipment. Public ownership is advocated as the one and only means that can bring about a more equal distribution of wealth.

The triangular co-operation between the labour of ability, manual labour, and ownership of mechanical labour-power would remain. It is necessary, and has come into being because it is necessary. Its abolition would mean the throwing back of production to primitive conditions. Therefore it could not be abolished without reducing production to a very small fraction of what

production now is, and so to reduce production would at once condemn the mass of the world's population to starving penury.

The talk about abolition of capitalism then is absurdity; and the meaning of the phrase is substitution of State capitalism for the capitalism of free enterprise.

II. *Bureaucratic Service.*—It has already been pointed out that capitalism—the ownership of mechanical labour-power—is not synonymous with the labour of ability. The synonymity, often taken for granted, is not the fact. Though capitalism and the labour of ability may in part overlap, in so far as the latter functions in a dual capacity, the two are distinct.

They would remain distinct, and even more so, under conditions of State capitalism.

Under those conditions the labour of ability—it could not be dispensed with—would become official labour. For present capitalists, the State would be substituted; for present employing, professional and business services making up the labour of ability in its varying grades, there would be bureaucratic service.

The objections to bureaucratic service are two. It would substitute routine for enterprise; and whereas now in general the labour of ability achieves success through merit and tried value, it would then achieve appointment through political wire-pulling and patronage. With the fear of failure removed the incentive not to fail would perish. Bureaucratic service, even assuming it to be honest on the whole, would produce less and cost

more. Production, too, would run in grooves—would be "tram-lined."

III. *Loss on Results.*—Now that would not only involve loss in the efficiency of the labour of ability; the loss would involve lessened results from mechanical labour-power.

Every manual-labour operative would in theory be an employee of the State. But to be an employee of the State, since *ex hypothesi* that would be universal, would be no privilege. The supposition that manual-labour operatives would find it easier to deal with bureaucrats backed by the State than to deal with a staff backed by an Association of Stockholders will not bear looking into.

Though the productive results to be dealt with would be less, it may safely be taken for granted both that the State would not forego its return as capitalist, nor the bureaucrats go without their salaries. The whole of the risk-cost, therefore—and it would through routinism be increased, not diminished—would be thrown upon manual labour. All the improvement in conditions gained by manual labour would be wiped out. The economic loss would be positive, and in the aggregate vast.

This vision of society institutionalised may appeal to the cranks of institutionalism. It assuredly can have no appeal to any man of sense.

Such changes have often enough been cried up as economic. They have nothing to do with economics. They are politics from first to last, and, from an economic standpoint, bad politics.

IV. *The Distribution of Wealth.*—But it is claimed that these changes would bring about a more equal distribution of wealth.

There is a true equality in wealth distribution and a false. It is true equality that wealth should be distributed according to the value of service rendered; it would be false equality—and in fact the grossest inequality—to distribute wealth without regard to the value of service rendered. The false equality would premiate the inefficient at the expense of the efficient; the shirkers at the expense of the workers; the stupid at the expense of the intelligent, and the ignorant at the expense of the expert and informed. And it would be idle to suppose that inefficiency, shirking, stupidity and ignorance would not grow apace under the encouragement. They would spread like weeds.

Contrast this suggested political distribution of wealth with its existing economic distribution.

Under the existing economic distribution the full measure of equality on the basis of service values is not attained. It is tempered by the Law of Diminishing Return. The men who render services of greater value receive less; the men who render services of less value receive more than their strict due. The Law operates with an ascending incidence of difference. Based upon the simple truth that every dollar to a rich man means less than to a poor man, and less in proportion to wealth on the one hand or to poverty on the other, the Law sets up a constant, yet wholly efficient, influence of adjustment.

This Law is natural, not artificial.

What is its economic consequence? Its consequence economically is to assist the diffusion of wealth, but to assist it without premiating social vices and penalising social virtues.

There is a widespread belief that wealth tends increasingly to accumulate in a few hands, and so to accumulate owing to the robbery of the many.

The belief is absolute and unadulterated bugaboo.

In place of tendency to accumulate in a few hands the ownership of wealth tends, and increasingly tends, to spread into many hands.

The comparison is not to look at the multi-millionaires, and then to think with a general, which is always a cheap, pity of those who have nothing; the true comparison lies between the number of multi-millionaires and the smaller fortunes. Which are growing in number the faster? Decidedly the smaller ones. And the growth is the more rapid the farther we go down the scale.

Do not these facts, testified by the rapid spread of mass investment, prove the reasoning and disprove the sentimentalism? Obviously.

V. *The "Pareto Line."*—The Italian economist, Pareto, has shown that in every civilised country the distribution of wealth presents the same features. If the average wealth of the mass is increased by, say, 50 per cent., the number of fortunes above the average of the mass is increased 50 per cent. If the average of the mass falls 50 per cent., the number of fortunes above the average will fall by 50 per cent. And the ratio of

fortune averages in the scale to the number of such fortunes tends to be constant. The foundation factor is always the mass average.

The "Pareto Line" shows that for every new $1,000,000 fortune at the top, there will be $1,000,000,000 of new smaller fortunes at the bottom.

VI. *Its Range of Variation.*—But, as a fact, while the ratio pointed out by Pareto is true, and the tendency of the distribution of wealth to conform to the ratio is everywhere economically constant, the tendency exhibits a certain range of variation.

The variation arises from variation in the rate of interest on money.

If the rate on money is high, fortunes tend to accumulate more rapidly in proportion to their size than they do when the rate on money is low.

A high rate on money, therefore, steepens up the distribution, and a low rate on money broadens it out.

But the attempts to "correct" the distribution of wealth by political attacks upon it force up the rate on money. They aggravate and sharpen, therefore, the very inequality they profess to redress.

To cut across this natural and economic distribution of wealth, defy the Law of Diminishing Return, and imagine that any civilised society would passively submit to the effort and its consequences, is palpable absurdity.

Pareto confined himself to stating the wealth distribution facts. He did not throw light either on the variation or on the reasons. The reasons are revealed in Economic Laws of Wages. They disclose the creation

of wealth by the abolition of human drudgery; by the shifting of the emphasis in human labour from muscle to mind; by the marvellous results of the power of mind; and by the distribution of those results in balanced proportions. And that is the economic truth.

VII. *Radical Defect of "Revolution" Theory.*—The whole theory behind the so-called industrial revolutionary movement assumes that society is a mechanism built up entirely by human contrivance, and therefore alterable into any form by human contrivance. But society is an organism developed by natural law through the influence of natural law on human nature and human motive. Man can no more alter the natural organic evolution of society than he can alter the constitution, say, of an oak tree and turn it into a pine. All he can do is to cut the tree down and chop it up. The theory behind the so-called industrial revolutionary movement is *ab initio* untrue.

All that could be accomplished by the so-called "industrial revolution," and at untold loss, would be the throw-back of society into the bondage of status. Every door of free opportunity would be closed.

VIII. *Value of Free Opportunity.*—Reference has already in the course of these pages been made to the marvellous results of throwing open the doors to free opportunity. In the United States—taking the United States as the greatest of the historical examples—what at one time appeared to be a wilderness, boundless but of little value, has been transformed into a land of abundance, where opportunity waits to reward enterprise

on every hand and round every corner. Cities that rank among the world's greatest and busiest have risen where once were solitudes; agriculture, supporting its millions of homesteads, has changed the face of the continent; the fertility of nature, ever kind to intelligence and toil, has been called upon to yield its annual toll of wealth, and rejoices in the alliance; and the land throbs under the mighty energies of its mechanical labour-power, embodying the strength of world populations fined into a mathematical precision.

This is the greatest of the historical examples, but all the others of the modern world are but different in degree. What industrial revolution in all the records of time has even been comparable with this?

And all this has arisen from natural causes, simple yet supremely, and for ever, efficient.

IX. *The "Potentiality" of Capital.*—Among those causes has to be reckoned—and not to perceive it argues on the part of theorists a total lack of imagination and insight—what may be termed the potentiality of capital. It is, on the part of those devoid of vision, a common habit to consider any given sum of capital as a thing of the same value in the hands of whomsoever it may be. Once more that is the routinist and flat-footed quantumist idea. So far from having always the same value in the hands of different men, a given sum of capital has in truth a wide range in values. It depends upon the character, energy, resource, courage and intelligence of the man. In the hands of a wastrel the value may be nil, and that is why the fool and his money

so easily part company. In the hands of a man of ability, original enough to see opportunity when it stares him in the face, clear enough in his thinking to estimate things according to their proper focus, and penetrate to the key-facts, and courageous enough, for all these reasons, to shoulder risks, $1,000 of capital not only may have, but *has*, the potential value of millions.

This power of capital allied with intelligence and mind and will the theorists of the so-called "industrial revolution" altogether overlook. In that respect again their thinking, from start to finish, is false. For the alliance of capital with intelligence, mind, and will is one of the world's greatest facts. It is the secret of the whole dynamic of society. Apart from its alliance with the sovereign qualities of the human spirit, and its endowment of these qualities with the power of flight through the free air of free opportunity, capital would be of so little value that men would never exert themselves to acquire it. Foresight would perish. But *the potential value of capital in the hands of capable men rises with every forward step society and production take. And the potential value is still rising.*

X. *Foundation of Modern System of Credit.*—Not only is this one of the world's greatest facts, but it is on the rock-foundation of that fact that the whole structure of modern credit has been built. The substantial function of that structure is to place capital in the hands of capable men; to motivate, and assist their activities; to confer upon their talent the power of flight; and to broaden out their field of service whether they be in a big

way of business or a little way. Much has been said about "high finance" by those who, knowing nothing about it, have held it up as a mysterious and lurking enemy of the popular good. There is no mystery about it save the mystery of a wider horizon and a sound judgment. The popular good—and in this respect it is a mighty good—is advanced most when credit can fulfil its function at the lowest cost; in other words, when the rate on money is easiest. The popular evil—and it may be a mighty evil—is increased most when through economic ignorance and political attack the rate on money is forced up, the function of credit narrowed, and its cost inflamed. For that aggravation of the cost is waste; the pouring of, it may be, hundreds of millions of dollars down the drain-pipes of folly. It is a payment for risk which ought not to be made.

As truth is always stranger than fiction, so the truth about the real Industrial Revolution is incomparably more remarkable than all the fancies hatched out in Utopia.

CHAPTER XII

EFFECTS OF PUBLIC POLICY ON WAGES

I. *Two Types of Policy.*—The record of public policy in regard to wages is a long one. This inquiry, however, would not be complete without an endeavour to look at past and present public policies in the light thrown upon them by the economic Laws of Wages.

The public policies may for this purpose be divided into two broad categories: one, the attempts either to limit or to lower wages by legislation; the other, the attempts by the same means either to defend wages, or directly or indirectly to subsidise them.

At the base in the past of all the policies which come into the first category, lay the belief, so long accepted as axiomatic, that the lowering of wage rates was the same thing as the lowering of labour costs. When that belief is taken without question to be true, its consequence clearly is that, if labour can be had without wages, labour costs must then be at their lowest.

II. *The Root Cause of Slavery.*—Obviously the consequence points to chattel slavery. Hence the belief, besides in every instance where it prevails tending to worsen the conditions and wages of labour, has chattel slavery for its logical sequence, and stands

as it were like a finger-post pointing along that road.

This was why in ancient times chattel slavery showed a tendency to appear and grow wherever industry and commerce became active. On the one hand there was increasing demand for labour-power; on the other, there were what then appeared to be the impassable natural limitations in the supply of labour.

Although Aristotle in his *Politics* assumed chattel slavery to be a necessary social development, for economic reasons which are now, in the light of the Laws of Wages, too evident for dispute, chattel slavery defeated its own purpose, as in the end it always does and must do, and to-day the world is free from that deepest of all the social taints.

III. *Causes of its Disappearance.*—But it has to be remembered that the present is the first time in history when so much can be said; and it ought not to be forgotten that if this most signal victory in the forward movement of mankind has been gained through the power of Christianity, the power of Christianity, in achieving it, has been immensely aided by the discovery of mechanical labour-power. Not only has that discovery destroyed the temptation towards slavery always present and powerful in ancient times, but it has gone far to destroy, and in due course will totally destroy, the economic error which is the real incentive of human enslavement.

Where the institution of chattel slavery has taken root, the inevitable resulting degradation in the quality

of human labour arising from the wasteful use of human labour acts, it is now clear, upon services precisely as the principle known as Gresham's Law acts upon the circulation of money. Just as bad money drives good money out of circulation where both are in use, so slave labour, once instituted, tends to drive free labour out of existence. In modern times the position of the "mean whites" in the Southern States of the American Union was an economic effect of slave labour, and even though the effect was lessened by the limitation of slavery to the negro population, it set up a discouragement of "mean white" settlement in those areas.

IV. *Attacks on Mobility of Labour: First Phase.*—Another form of public policy is found in the efforts to repress the mobility of labour.

In England in the fourteenth century, after the Black Death had thinned the population, scanty even before, fear regarding the scarcity of labour led to the enactment which made it a crime for the labourer to move away from his birthplace parish. Under this "Statute of Labourers" he became "tied to the parish."

Until that time, and not in England only but all over Europe, labour, through the force of tradition and custom, had remained for centuries almost entirely immobile. But after the Black Death there were areas where the labouring population had been nearly altogether swept away. In those areas, for the time being, labour in the literal sense of the word commanded a famine price, and although the natural inclination to take advantage of that price was but the equally natural

tendency of the population to redistribute itself, this movement was looked upon with alarm not only because of the rise in nominal wages, but because of the breakdown of custom.

The enactment, which in England tied the labourer to his native parish, was an attempt at once to keep wages on the old level and to defend immobility. It marked the beginning of a new line in wage limitation policy, and the policy appears again in the severe laws of the reign of Elizabeth directed against "sturdy vagabonds." These enactments formed a complement of the then newly-instituted Poor Law, which was also, among other things, designed to do away with the necessity of the labourer seeking a livelihood save in the parish where he had been born. With Poor Law relief to fall back upon, he was to have no excuse for "vagrancy."

The like practices of restriction, and if anything yet more severe, prevailed in France and in Germany. Even where they were no longer legally serfs, labourers were still looked upon as the property of their feudal lords.

To-day the mobility of labour, together with the co-related mobility of capital, are ideas universally accepted. They have come to be commonplaces beyond challenge; a part of the "atmosphere" of society in its modern form. But in the Middle Ages the immobility of labour was part of the atmosphere of society. Mobile labour and mobile capital in the modern sense of the term appeared equally inconceivable. To become

"vagrant" at all the labouring man either needed to be out of the common adventurous, or driven on, as he often was, by the spur of dire necessity. It seemed nothing strange, therefore, to treat him as a dangerous type of criminal.

But though they tended to check, none of these enactments destroyed the mobility of labour. Alike in England and on the continent of Europe, the natural movement of labour in search of better employment, once free employment began to be offered, gradually broke through the bonds of custom, and successfully defied political restraint.

V. *Second Phase: The "Iron Law of Wages."*—Out of these traditions rose the dogma of the "Iron Law of Wages." The dogma laid down that rates of wages were determined, and alone determined, by the supply of labour in quantity relatively to the demand for it.

The dogma has long been abandoned as a phantasm, but it had a very definite influence on legislation, for since it had proved to be out of the question to destroy the movement of labour, the necessity of so regulating that movement as to ensure a supply equal to the demand was in turn accepted as axiomatic. On the dogma the "Iron Law," though a convenient excuse for keeping down wages, could not be allowed to work so as to raise wages through the effect of labour scarcity.

This led in Great Britain to the Act of Parliament already alluded to giving Justices of the Peace the authority to fix rates of wages.

Broadly this phase of public policy aimed at the same result as immobility of labour by seeking to abolish competitive wage rates in different counties and areas. There was to be no attraction of a higher rate of wages in one place than in another. The supposed "Iron Law" was to be qualified in its operation by positive law.

But as freedom in wage agreements was not abolished, and the enactment broke down in the end partly because of evasion and partly because of the sequent social mischiefs, public policy next declared combinations on the part of workmen to raise wages to be criminal conspiracies. In the end that phase of public policy was also doomed to failure, though not until after a prolonged and bitter fight. The Act of Parliament passed early in the nineteenth century lifting the ban of crime off combinations was carried amid a public panic.

VI. *The "Wage Fund" Theory.*—In face of combinations another dogma made its appearance—the "Wage Fund" theory.

The theory is an example of what in legal pleading is known as "confession and avoidance."

It contains a modicum of truth, because where production is not keeping in step with the supply of the precious metals used as media of exchange—and that was the state of things in Europe in the sixteenth and seventeenth centuries—the exchange value of the precious metals falls. In other words, the prices of commodities in terms of the precious metals rise, and from the same

causes and equally the money price of services rises, notwithstanding that *real* wages do not.

On the other hand, where the increase in production outpaces increases in the supply of the precious metals, the prices of commodities fall, but in that case, as already shown, the money rate of wages does *not* tend to fall *pari passu* with prices. Owing to the greater increase *in production there is then a rise in real wages.*

The former state of things would according to the Wage Fund Theory be termed an excess of the "fund"; the latter state of things, however, would form a deficiency of the "fund." And in the latter case, on the supposition that the "fund" was deficient (the fall in prices being assumed to indicate its shrinkage), the attempt would be held justified to drive down wages in accordance with the fall in prices. The error of the Theory, it will be seen, lay in leaving out of account the effects of increase or decrease of production, and in attributing the rise or fall of prices and wages solely to the greater or less abundance of money. It is now, on the Laws of Wages, clear that, so far as a fall of prices arises from the greater increase in production, the rate of money wages should *not* be reduced.

Now there is no doubt at all that the pace at which mechanical labour-power tends to be created and equipped is accelerated when and where capital is abundant and therefore cheap, and retarded when and where capital is scarce and dear. To that extent the abundance or the scarcity of capital, affecting the pace at which production is expanded, reacts upon employ-

ment and through employment on wage rates, whether the rates be the pay of labour of ability or of manual labour.

But the term capital is not synonymous, and no economist now supposes it to be synonymous, with legal tender currency. Much less is it an interchangeable term for the precious metals, as the Wage Fund Theory assumed.

By the modern devices of exchange the supply of legal tender currency in any country is, in the total exchange and trading turnover, multiplied by the use of instruments of credit. Bills and cheques *represent* currency, and by representation serve all its purposes. Moreover, the services of credit are elastic; adjustable as regards their total to the needs of business and trade, and adjustable, therefore, to the pace of production. The adjustment is necessary because the needs of trade present constant ups and downs.

Where consequently a currency is either gold, or based on a sound standard of value—the exchange value of gold—the point to be kept in mind is not the total of the currency alone, but the total of the currency relatively to the total of production.

VII. *Influence of the Theory.*—When the Wage Fund Theory was in vogue, the relative and combined effects of the "gold supply" and of production in their permutations of increase and decrease were not in the least understood. Indeed they were not so much as suspected. One cause only was looked at, and that cause misread, and made a pretext for resisting rises in wages where

rises were economically justified, or for attempted reductions in wages where reductions were economically unjustified.

Like every other half-truth, the "Wage Fund" Theory was worse in its influences than no truth. During the first half of the nineteenth century it helped to sow in industrial relationships the seeds of a harvest of mischiefs.

VIII. *The Population Theory.*—Associated with this dogma, and in its influence in line with it, was the Population Theory of Malthus. That theory is, that since natural increase of population takes place in a geometrical progression, and increase of subsistence in an arithmetical progression, natural increase of population, if not restrained, must so press upon "the limit of subsistence" as to render natural increase of population a progressive decrease in average of welfare per head.

Malthus in his *Essay on Population* assumed that he had proved that thesis beyond debate.

On the face of it, the theory takes it for granted that the "limit of subsistence" is calculable and known. But the limit of subsistence as Malthus conceived it, and as nearly everybody else in his time conceived it, was a human-cum-horsepower-labour limit. It is not merely that since the time of Malthus there have been opened out and peopled great continents then mostly unexplored wildernesses, but that all this has been accompanied by an enormously multiplied power of exploitation, and a power never before known of con-

verting natural potential wealth and resources into wealth realised into forms for human use and service.

The truth is now seen to be that the "limit of subsistence" is not calculable and known.

IX. *Why not Scientific.*—But it is not for that reason that the theory is unscientific. It is unscientific because *if natural increase of population in a geometrical progression affords human labour resources to create and work mechanical labour-power in a geometrical progression, then production and the ability to produce will keep step at least with natural increase of population.* If that be the fact, then the assumed growth of pressure on the limit of subsistence is a myth, and the theory falls.

Consider the facts. Malthus calculated that by natural increase the population of Great Britain, in his day less than 11 millions, would in 100 years reach 45 millions. In that he was right. Nay, he was within the mark. Not only has that population figure been reached; over and above that figure there has been during those 100 years a tide of emigration from Great Britain which cannot be reckoned at much less than 30 millions.

But has there been the gradual approach to starvation which he predicted? On the contrary, the level of welfare has surged upwards in a manner beyond all precedent.

Did Malthus, or did anybody in his day, foresee the peopling and opening up of America, Australia and Africa? There was not a suspicion of it.

Did he foresee that as the sequel of the discovery of

steam-power men would have under their control a labour-force equal to that of many times over the population of the whole globe? On the contrary, the invention of James Watt was then pronounced by most "experts" to be an absurdity, just as, earlier still, the law of gravity had been pronounced "a crotchet of Mr. Newton."

In the time of Malthus the Anglo-Saxon population of the world everywhere did not exceed 13 millions. It is now close upon 160 millions. At that time the population of Germany was not more than 16 millions, and is now 66 millions, and adding the tide of emigration this other branch of the Teutonic peoples is not far below 90 millions. At no period in history have there been growths of population equal to these.

Instead, however, of there being greater pressure on "the limit of subsistence" now than then, there is far less pressure. Nor is the limit of subsistence anywhere in sight. The discovery and applications of electrical energy and its alliance with chemistry have, on the contrary, opened up the prospect that even steam-power, as a servant in the production of wealth, will be left far behind. World of wonders as modern production is, it offers all the promise of becoming a yet wider world. The subsistence drawn from the earth in food-stuffs and in raw materials remains but the merest fraction of the total possibility.

X. *Its Effect on Wages.*—How did the Theory of Malthus affect the question of wages? In this manner, that for a hundred years it was accepted by the un-

reflecting as true, and even yet numbers its believers. During those hundred years it appeared to offer ground for concluding that the wages of manual labour ought not to rise. Why should they, when on the theory, with the assumed inevitably increasing pressure of labour on the limit of subsistence, they ought to fall? Because it appeared to offer that pretext the theory was adopted as "orthodox," and, blinding men to economic truth, was another cause of embitterment in wage relationships.

Even yet there are those who hold that population—the increase of human labour in quantity—determines wages. If labour could be estimated simply by quantity in the abstract; if what labour accomplishes by its translation into skilled employments could be left out of account; if mechanical labour-power could be left out of account; and if brains, all on a dead level, did not matter a straw, then the notion just alluded to might have some basis. The Laws of Wages prove it to be an absurdity.

The combined influences of the "Wage Fund Theory" and of the Malthusian "Population Theory" held the field during all the first half of the nineteenth century; and they go far to explain its record of wage conflicts.

Of necessity the review just presented of past public policies in regard to wages, and of the influences underlying and shaping those policies, has been brief. It is enough, however, to indicate the long struggle on the part of labour to achieve freedom and mobility, and equally it is the record of a resistance forgetful of the

truth that the mobility of capital, which has never been challenged, is impracticable without the mobility of labour as its counterpart. Apart from the mobility of labour, capital also would be tied down. Only the smallest fraction of the present employment of capital in enterprise could have been achieved, and were labour again to become immobile, all but the smallest fraction of the present employment of capital would perish.

XI. *Causes of Past Mistakes.*—In studying past policies and in passing judgment upon them it has to be remembered that we *are* looking back. Looking back we can study consequences impartially and with detachment. We can isolate causes. Men in the past had not those advantages. It is easy amid ideas now familiar, and achievements which have become the commonplaces of every day, to take up in regard to past events a critical attitude. But in the past these now accepted ideas appeared either dubious or strange, and the achievements were not foreseen. The temperament which can detach itself from the mental atmosphere of its own age is rare, for it implies an ability in inductive reasoning which is exceptional. On the other hand, the habit of jumping to negative conclusions is common, since there is nothing men are more apt to forget than that in declaring an impossibility they really set up to know the bounds of possibility. The bounds of possibility are not within the limits of any man's vision.

XII. *The Key of the Wages Problem.*—It has been for these reasons that the true key of the Wages Problem has for so long appeared to baffle the search for it. The

mistakes of past policies have all arisen from failure to see the disparate economic consequences of increase or decrease in the supply of money, and of increase or decrease in production.

The former cause tends to lower or to raise prices and wages equally, since money is equally the value measure of both, but the latter cause where it lowers prices tends at the same time to raise wages, or else, where it raises prices, tends at the same time to lower wages. And it is by increase or decrease of production alone that *real* wages are affected, because there is then not a change merely in the *measure* applied to values; there is then a change in the *volume* of values.

This is the Key of the Wages Problem. It appears simple enough when explained, but it has demanded long experience to arrive at the explanation.

XIII. *Wage Subsidies.*—We can now pass on to the public policies comprised in the second category.

During the later years of the nineteenth century and since, owing to the concession of widened political franchises, the trend of public policy in regard to wages has veered right round.

From attempts to limit and reduce wages by legislation, the trend has been to favour public subsidies in aid of wages.

These, direct and indirect, have assumed various forms: protective tariffs; State-aided schemes of assurance; house-rent restrictions; manual labour-wage minima, and statutory limitations of the working day.

XIV. *Protective Tariffs.*—The indirect wage-subsidy operation of a protective tariff has already been touched upon. Considering it from the standpoint of the Laws of Wages, if a consequence of enhancement of price, plus assurance of the protected market, leads employers to neglect labour *costs*, then the effect of the tariff is to that extent retrograde. It has often been urged that protected industries do not flourish under protection. They do not if they rely upon the protection to neglect labour costs and slack off in enterprise. No industry can neglect labour costs and prosper. To work in harmony with the Laws of Wages is the key of success. The mistake lies in depending on the protection for more than it can give.

But the circumstances of a country, continental in area, and having a powerful, extensive and varied agriculture, like the United States, are totally different from those of countries like Great Britain and Holland, which have a dense population and a small area.

A high level of welfare and of wages can in such countries only be reached and maintained through an extensive overseas commerce. They live by working up into finished goods raw materials imported from abroad, and by selling abroad the surplus of finished goods over the demands of home consumption.

The more raw materials which, with the aid of their mechanical labour-power resources, they can import, work up, and export, the greater are their profit earnings in total, and therefore their purchasing power, and if that profit be applied to the purchase abroad of goods

enhancing their standard of living, it obviously means a rise in general welfare. Accordingly Great Britain and Holland adhere to public policies favourable to a large overseas commerce.

Great Britain formerly maintained a tariff on imported corn which was in effect a public subsidy in aid of agricultural rents, profits, and wages. But the effects of the subsidy, in depressing the conditions of urban industry after the discovery of steam-power had given greater importance to manufacture, forced abandonment. Here the predicted lowering of agricultural wages did not take place. As the change in policy led to expansion of urban industry and a rise in urban wages, agricultural wages did not fall. Indeed, the precedent situation of urban industry had so contributed to depress them that in the end very little, if anything, of the subsidising effect of the tariff had been felt in rural wage rates.

XV. *Defensive Legislation: Factory Acts and "Sweated" Trades.*—There are two forms of public policy defensive of wages which stand in a class by themselves. They are the legislation regulating conditions of labour in factories, and the legislation dealing with "sweated" trades.

Abuses of the employment of labour in factories—the engagement of children, and the working of excessive hours, under conditions hurtful to health—do not, it is now clear, reduce labour costs. They not only tend to the wasteful employment of manual labour, but they undermine physical efficiency, and lead to a high sick-

ness rate. While the apparent saving on the pay-roll is, for the employer, no more than apparent, the low rate of wages is to the operative a genuine loss, and the loss is made worse by reduction in average of earnings through sickness. These abuses, therefore, conceal a real waste. Conversely, while restraint of them, within due limits, is a defence of wages, it does not, within those limits, involve increase in labour costs. The effect on labour costs is the true test of whether or not legislation of this character is justified and sound, or carried to the point where it becomes bureaucratic and fussy.

The same observations apply broadly to "sweated" trades. The defensive device here is to exact a legal minimum wage, but, for the reasons already given, the minimum need not be an addition to labour costs. Here, too, the effect on labour costs is the true test of whether or not the minimum is above or below what it ought to be.

XVI. *State-aided Schemes.*—State-aided insurance schemes against sickness are a subvention of wages to the extent of the aid. So far as the aid operates as a tax on production it tends at once to raise prices and to lower wages. If, however, the effect of the scheme is to improve the physical efficiency of manual labour, the addition to labour costs arising from the aid tax may be offset.

State-aided schemes of insurance against unemployment are equally to the extent of the aid a tax on production, with the effects on prices and wages already noted. Where labour becomes casualised it is not the

nominal rate of wages which determines and is the index of its condition. The index is the *average* rate of earnings. If the average through casualisation be low, the loss in physical efficiency and in incentive will tend to make such labour still more casualised.

The difficulty underlying a scheme of this kind, when made universally compulsory on a flat-rate basis, is that the labour which, from regularity of employment, pays most receives least in benefit, and the labour which, from irregularity of employment, pays least takes most in benefit. The better grades of labour are accordingly taxed for the worse grades. The effect is to reduce the average of the better in order to level up the average of the worse.

Like other public policies dealing with labour and wages, this depends, as regards its soundness or unsoundness, on the limits within which it is applied. The danger attending an unsound application is that the better grades of labour can be more notably and more easily depressed by it than the worse grades can be levelled up. If the benefits became so far extravagant that doing nothing pays as well as working for a living, the better grades will be depressed and the worse grades at the same time demoralised. The scheme then becomes not even a subvention of wages; it shades into a public subvention of laziness.

House-rent restrictions, as enforced in Great Britain and in Germany, are subventions of wages paid by a limited class—the owners of houses let below the restriction figure. The effect of this type of subvention has

been to arrest the building of such houses, and to get over the "housing problem" and the loss of employment arising out of that arrest, direct subsidies for house building have had to be set on foot, or housing schemes undertaken out of public funds raised by borrowing.

XVII. *The Legal Minimum Wage.*—The most important application of the principle of a legal minimum wage has been in the coal-mining industry in Great Britain. There is in all mining a wide element of adventure, and in the case of coal-mining it is taken into account by and provided for in the "basic rates" of wage agreements. In practice the legal minimum has been found to apply, where it does apply, mainly to the unskilled labour employed. It has not, within this range of application, proved one of the greater additions to labour costs.

In the light of the competitive Law of Wages what has been called a national minimum wage, were it to throw the distribution of risk-cost out of balance, would have a widespread and disastrous effect on employment.

XVIII. *Statutory Limitation of Working Day.*—It is also in the coal-mining industry of Great Britain that the policy of a statutory limitation of the working day has been most conspicuously tried. Such a limitation, of course, is without point unless coupled with a legal wage minimum; but coupled with a minimum wage it is an indirect subvention of wages, and a direct increase in labour costs so far as not offset by any gain in labour efficiency or incentive.

This indirect subsidy in aid of miners' wages was, therefore, one paid by the capitalists of the industry. Combined with the increase in overhead charges due to taxation, enhanced railroad rates and distribution costs, all-round rise in risk-cost, and fall in the price of the product through the competition of oil and of hydro-electrical power, it brought about in the coal-mining industry in Great Britain the crisis which in 1925 was for the time tided over by the payment of a further and direct wage subsidy.

XIX. *Economic Dangers of Wage Subsidies.*—What is the moral of these wage subvention policies?

"All Governments," Walter Bagehot once shrewdly observed, "like to interfere; it elevates their position to make out that they can cure the evils of mankind. And all zealots wish to interfere, for such zealots think they can and may convert the rulers and manipulate the State control."

But in the light of the economic Laws of Wages the question may justly be asked: Are these policies, so far as they are not restraints of positive abuses, worth while?

The policy of public subsidies in aid of manual labour wages may be attractive to politicians, but its economic dangers are palpable, and there is always the temptation, once this slope has been entered upon, to slide further down it.

Its gravest economic danger is that it tends to arrest advancement in the quality of labour. A subsidy which has that effect is indeed a gift of the Greeks.

XX. *Effects of Public Debt on Wages.*—We may now finally consider some general effects of public policy.

Any rise in the ratio of non-producers to producers means a lessening of the recompense of the latter unless the difference in the costs of production to its results keeps pace with the rise. To put it in another way, producers must, in order to maintain their recompense at former level, produce more.

Now, owing to the Great War, there has been in most countries of the world, a rise in the ratio of non-producers to producers so rapid that it may justly be described as catastrophic.

Every State in the modern world has to a greater or less degree anticipated, and chiefly for war purposes consumed, a proportion of its future public revenues by raising money upon them, and the services of this capital have to be paid for, even though by far the larger part of the liability is "deadweight," or non-productive, debt.

The creation of deadweight-debt, neglecting the question of its political necessity or expediency, and looking at it simply from an economic standpoint, always has two grave disadvantages.

It diverts capital from the increase and improvement of the means of production through which otherwise capital would be compelled to seek a return, and on the production so slowed down it lays heavier taxation burdens.

Expansion of mechanical labour-power and its equipment demands at all events a minimum of the labour of ability and manual labour, and where the available

volume alike of the labour of ability and of manual labour has been lessened by catastrophic destruction, and at the same time a vast total of the world's capital has been diverted from economic to political employment—from productive to non-productive service—the increase of productive ability *must* to that extent be crippled.

XXI. *Manual Labour Aspirations.*—Manual labour has been encouraged to believe that higher pay for less work can be achieved by political enactments.

The aspiration of the manual worker to better conditions is natural. In every age the aspiration is adjusted to the life of the time. If the manual worker sees round him the refinements, luxuries, and conveniences of civilisation, they are not less in his eyes but more because he may have but little hope of sharing in them as he would like. In times past—in the Middle Ages in Europe—the labourer, who lived in a wattle-built cottage with an earthen floor, slept on rushes or straw with a block of wood for a pillow, was clothed in the coarsest of homespun, and not well clothed, fed on the poorest and barely ever varied fare, and worked from sunrise to sundown, for a wage in kind which just kept him above starvation, doubtless had aspirations after better conditions. But they were limited. The distance then between the noble and the hind was far wider than the distance which now separates the richest man from the poorest. With every forward step in civilisation the aspiration of the manual worker has broadened. With every forward step the distance in condition

between social extremes has been decreased. But the forward march of civilisation has not kept step with desires. It is impossible that it should; for human desires are winged, and civilisation is earth-bound.

There is always this element of impulse in human life. Sane and controlled, it is one of the greatest and most beneficial of social forces. Industry, enterprise, invention, thrift are its children. Inflamed to excess, and passing beyond control, it may become the most destructive of social forces; sweeping away everything in its track with the ruthlessness of a flood that has burst its bounds. Nevertheless, the useful and beneficial stream and the destroying flood are but the same element.

XXII. *Conclusions.*—No society can afford long to pursue a public policy which, while multiplying the cost and complexity of governmental machinery and absorbing an ever-increasing percentage of the population into official non-productive employments, tends to depress the quality of labour.

The sound public policy is to favour enterprise and increase of production; by economy and care for the public credit to render capital as far as possible abundant and cheap; to throw no impediments in the way of foresight and thrift; to maintain a sound and honest currency; to enable labour to take advantage of every opening to translate itself into skilled employment, and to avoid interference with the economic laws of wages and the natural distribution of riches.

Along the path of sound public policy there is strength and wealth, each increasing in an ever-ascending ratio.

Along this path there is ethical and moral advancement, and the way is sure.

Economic freedom, and the working of economic laws, have called into being all the crafts, arts, conveniences and abundances of civilised life. They have accomplished incomparably more than all the legislation imaginable.

Among other things economic freedom enables a thousand human beings to live in civilised life and under immeasurably better conditions where one man could barely support life under the conditions of primitive barbarism, and very few of the thousand under conditions of continued anarchy.

This is the result of the increase of production and exchange which civilisation and scientific discovery and invention have, with economic freedom afforded them, brought about.

Economic laws are natural. They are in harmony with the mind of man and its powers; they are attuned to human nature and its constant impulse to improve its lot. They act through motive, which, though a simple cause, is like every other natural tendency a perfectly efficient cause; universal and unchangeable notwithstanding infinite shades of variation in detail.

And that motive is rooted in the natural affections of man, themselves designed, not only to preserve human life, but to continue it. Preservative natural affections, and motive arising out of them and working in accord with them, embody the design in big outline. The wonders of modern production are the fruits. Alone through co-operation can man bring the powers of his

intelligence into proper play, and only through co-operation can he reap the rewards of those powers. Society, and society alone, offers the opportunity and the scope for the range of human talent and genius.

As with the exchange of goods, so with the exchange of services, benefit is mutual. That is an economic truth men have always been slow to see, save in measure as they have advanced in true civilisation.

Reluctance to admit the truth or inclination to deny it has inspired most of the mistakes of public policy.

EPILOGUE

THE more attentively they are studied, the more clearly are modern production, exchange, and distribution seen to offer the spectacle of a world of wonders. And that world offers, as already pointed out, all the promise of becoming a yet wider world.

But that world rests fundamentally on common respect for rights.

As rights have arisen out of restraint of wrongs, common respect for rights implies common restraint of wrongs.

The common respect for rights so founded makes for and ensures true political equality, and through that makes for political tranquillity.

In turn political tranquillity makes for and ensures economic welfare.

It is a favourite gospel of to-day that manual labour should be treated not only with justice but with benevolence, and especially with public benevolence.

If, however, that gospel becomes a cause of political intranquillity, and through political intranquillity leads to heavy taxation, the consequence is economic difficulty.

In the face of economic difficulty the world grows hard and cold. Benevolence then contracts.

Conversely, with economic welfare the social atmosphere becomes genial. Benevolence then expands.

To aim, therefore, at the realisation of benevolence by undermining common respect for rights, creating political intranquillity, and bringing about economic difficulty, is to turn truth and fact upside down.

Social benevolence can only be realised and reached through justice; it can never be reached through injustice.

On the basis of justice, political tranquillity and economic welfare, the rise in the conditions and wages of labour is sure and solid. And that rise, on that basis, can not only go far beyond the dreams of apostles of "benevolence" who profess to seek it through confiscation, and plundering imposts on industry—the rise will be far more rapid.

The one way leads into the wilderness of want; the other is the certain and safe road to riches and power. The one is folly; the other is understanding.

It has been claimed that Economics cannot ignore moral motives and influences, and the inclusion of moral motives and influences within the scope of its study has been freely held up as the "New Economics."

But in the world of actual experience, while men act, and of necessity act, upon economic motives, they so rarely act upon such motives wholly uninfluenced by moral motives in some degree, that the exceptions do not count. The exceptions, indeed, are as rare as those where moral motives are acted upon wholly divorced from economic motive. While the profession of acting

upon moral motives alone may be put up as a tenet, the instances in which the profession is translated into conduct are few. In the world of actual experience men in the mass, as sense and sanity alike dictate, act upon some combination of motives of both sorts. It is the balance which results in wise and upright conduct.

The proper study of Economics *is* economic motives. The study which takes both economic and moral motives into account, and their interplay, is POLITICS.

In the foregoing pages some glimpses have been given of how and why wealth tends to spread as surely as light and warmth. It is not true that "the rich are growing richer and the poor poorer." The truth is the exact opposite.

Every man in a free state of society carries his fortune in his brain. But while the sagacious man looks there for his gold mine and finds it, the "eyes of the fool are in the ends of the earth."

Most of all is it the interest of the poor man to maintain and defend the freedom which society has won. Least of all is it the interest of the poor man to be dragged back into the bonds and bondage of status.

To prevent the poor man from being cheated of his inestimable birthright, and dragged back by false guides into bondage and want, this book has been written. It has been written in the hope and belief that it will throw light upon difficulties, and that it may serve as a guide both to employers and employed. They are co-operators in common service and a common cause.

By co-operation they have everything to gain; by

mutual hostility everything to lose. More than anything else the Wage Problem is a problem of the replacement of hostility by conscious and informed co-operation. That replacement alone would bring about the greatest uplift in wealth the world has ever witnessed. If this book contributes to the replacement, it will have served its purpose.

The importance of a true Theory of Wages need not be stressed. Its material benefits, in lessening industrial strife and in reducing risks, may in time be reckoned by untold millions, and its moral benefits in reducing the sum of human unhappiness will be equally great. It should go a long way, if not eventually all the way, to make " industrial warfare " a thing of the past.

DEFINITIONS OF TERMS

Wages.—The recompense of hired services in terms of money. (This definition includes salaries.)

Labour.—Energy of every kind applied to the creation of wealth, and therefore including (1) mechanical labour-power; (2) the labour of ability, and (3) manual labour.

Mechanical Labour-power.—Plant, machinery, appliances and equipment of every kind in every industry, whether operated by water-power, steam-power or electrical energy.

Labour of Ability.—Non-manual labour of every grade.

Manual Labour.—Labour involving human physical exertion of every grade.

Capital.—Wealth expressed in terms of money values.

Active Capital.—Capital (as above defined) employed to create more wealth. (Note: passive capital is capital applied to purposes of satisfaction and enjoyment.)

Liquid Capital.—Capital in the form of money.

Fixed Capital.—Buildings, plant, machinery and equipment.

Circulating Capital.—Merchandise and stocks-in-trade.

Value.—The commonly accepted utility (or rarity) estimate in terms of money.

Price.—The commonly accepted exchange value for the time being.

Labour-results.—The output of labour computed in terms of value.

Labour-cost.—The cost per unit of output in terms of money.

Money.—The medium of exchange in terms of the legal tender currency.

Credit.—Purchasing power representative of money.

Instrument of Credit.—A document in any form recognised by law for transferring credit.

Contract.—Any agreement involving the creation or transfer of rights.

Status.—Social position or class determined by custom and, or as modified by, positive law.

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